



## SEQUENCE LISTING

&lt;210&gt; LEVINE, et al.

&lt;120&gt; VARIANTS OF PROTEIN KINASES

&lt;130&gt; 802620-2005.1

&lt;140&gt; 09/771,161

&lt;141&gt; 2001-01-26

&lt;150&gt; 09/724,676

&lt;151&gt; 2000-11-28

&lt;150&gt; 136776

&lt;151&gt; 2000-06-15

&lt;150&gt; 135619

&lt;151&gt; 2000-04-12

&lt;160&gt; 273

&lt;170&gt; PatentIn version 3.0

&lt;210&gt; 1

&lt;211&gt; 1573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1

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<212> DNA  
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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<212> DNA  
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<210> 14  
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<212> DNA  
<213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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<211> 364
<212> DNA
<213> Homo sapiens

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<211> 923
<212> DNA
<213> Homo sapiens

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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<212> DNA
<213> Homo sapiens

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<221> -
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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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ggaccgagct cgggtgtatg gggccgtagg aaccggctcc ggggccccga taacgggccg      180
cccccacagc accccgggct ggcgtgaggg tctcccttga tctgagaatg gctacctctc      240
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<211> 502
<212> DNA
<213> Homo sapiens

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gatatgagcc agtggctgaa attggtgtcg gtgcctatgg gacagtgtac aaggcccgtg      300
atccccacag tggccacttt gtgccctcaa gagtgtgaga gtccccaccc acctctcctt      360
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<211> 1148	
<212> DNA	
<213> Homo sapiens	
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<222> (1)..(1148)	
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'	
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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 26  
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<212> DNA  
<213> Homo sapiens

<220>  
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<222> (1)..(897)  
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<211> 1224

<212> DNA

<213> Homo sapiens

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<210> 28

<211> 1424

<212> DNA

<213> Homo sapiens

<400> 28

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 <212> DNA  
 <213> Homo sapiens

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 <211> 2590  
 <212> DNA  
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<212> DNA  
<213> Homo sapiens

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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<211> 940  
<212> DNA  
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<211> 951  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (1)..(951)  
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 36  
 <211> 2063  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> -  
 <222> (1)..(2063)  
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 37  
<211> 1393  
<212> DNA  
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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 <212> DNA  
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 <211> 1323  
 <212> DNA  
 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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<211> 2518  
<212> DNA  
<213> Homo sapiens

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 <211> 1464  
 <212> DNA  
 <213> Homo sapiens

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<220>
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<222> (1)..(1464)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 55  
 <211> 1080  
 <212> DNA  
 <213> Homo sapiens

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 <222> (1)..(1080)  
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 55

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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

<400> 62

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agctgtctta ggcataatat ttgtctgcct ctaattattt cttcttaggt ttgtacaagt	180
gtgattatta gttaaaacat acttggcata cttccagaag ccagggcact tggtagttt	240
tgattgcacc aggtttcag gttaagtcta taaataatga agagaggaag gaacatagaa	300
ctgccaacta gaagtaaaca ggctcgat ctggtagacct gagcgactct gaatgcttgc	360
tgagtcctag ttggcatcta ggttggttcc catgttgag agacgaggat ggtgaattta	420
agccatgaag actttgaatt tatttcagga acacgaatgc gcaaacttgc tcgagaaggc	480
cagaaaccac ctgaaggttt catggctccc aaggcttggc ccgtgctgac agaatactac	540
aaatccttgg agaaagctt ggctgttaac ccagtcactc caccttgc acattactag	600
taacaagagg ggaccacata gtctctgttg gcatttctt gtggtgtctg tctggacatg	660
cttcctaaaa acagaccatt ttcccttaact tgcatcagtt ttggctgcc ttatgagttc	720
tgttttgaac aagtgtaca cactgatggt ttatgtat ctttccact tattatagtt	780
atattcctac aatacaattt taaaattgtc ttttatatt atattatgc ttctgtgtca	840
tgatttttc aagctgttat attagttgta accagtagta ttcacattaa atcttgctt	900
ttttccccctt aaaaaaagaa aaaaattacc aaacaataaa cttggctaga ctttgggg	960
aggattttac aagacctttg tagcgattag atttttttc tacattgaaa atagaaactg	1020
cttcctttct tctttccagt cagctattgg tctttccagc tggtataatc taaagtattc	1080
ttatgatctg tgtaagctct gaatgaactt ctttactcaa taaaattaat ttttggctt	1140
cttaaaaata	1149

<210> 63  
 <211> 1461  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> -  
 <222> (1)..(1461)  
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 63	
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tccagtc	cag cgtgggtt	a tttcctgcc	c atccccatc	a atggtgagg	a cccagactg	180
agtccagcac	gc cccctggc	at ccctggt	g cagcaggca	gg gccccgcc	at ggacggca	240
ctgcagccga	gc ctcgcccc	gg cgccggct	cc ctgcagca	tg cccagcct	cc gccgcagc	300
ctcggaa	g cggcctgag	gacttcaagt	tt tggaaaat	c ttggggaa	gg ctctttt	360
ccacggttgt	c ctggctcg	g aactggcaa	c ctccagaga	a t atgcgatt	aa aattctgg	420
agaagcgaca	t atcataaaa	gagaacaagg	tcccctatgt	a accagagag	c gggatgtca	480
tgtcgccct	ggatcacccc	tt ctgtt	ag cttaactt	ca catttcag	g acgacgaga	540
agctgtat	ttt cggccttagt	t atgcca	aa atggagaact	actt aaat	at tcgca	600
tcggttcatt	c gatgagacc	t gtacccgat	ttt acacggc	t gaggattgt	t ctgc	660
agtacttgca	c ggcaagggc	at cattcaca	gg gaccta	accggaaaac	at ttgtt	720
atgaagat	at gacatccag	at cacagatt	ttt ggaacagc	aaa agtctt	ta tcccagaga	780
gcaaaca	at gttgaaga	a acaagtcat	ttt gcatctgt	gttgcgtt	t gaa catgg	840
cctctctcct	ggccactaca	t cacattcag	ag ttgattct	ccc ctccctg	t tcagagact	900
gg tgg tgg	gt tcttatac	c ggcatctct	ctt gacagc	ag cagcattt	gtt ggcataa	960
ttt ggc	ttt catgaact	c attagagag	t gcagaaagg	t cacagcctg	at acattcat	1020
gagatgca	at tcattaaaga	g caacttctc	ccc agcaact	ttt gggtt	tg actcgtgg	1080
tcatcttcct	ccgcgagg	tc ttgtaatc	acc agcttgc	c gtgtctcag	gt tagttcag	1140
acaggccaa	at taggtgg	gt ctctgtcg	at taaatagg	cgc ctgtt	tc atcctgccc	1200
aggaggaaa	g atgccccag	cnc gccatgc	ct ctaa	gat gaggaga	g gtggccagg	1260
aaggccagcg	g atgctgcgg	g ccgggcgt	gg ggtgt	c tttcctgcg	g gcccggcgt	1320
gagggtgct	ttt cttcccac	g ggcggggag	t ggggtt	c ttcttca	cg ggtggg	1380
gtgggggtgc	t cttccctt	c ttcctggc	t tcccg	t gtc	tcc acggct	1440
gcacagntgc	g ctgcattt	c				1461

<210> 64  
 <211> 765  
 <212> DNA  
 <213> Homo sapiens

<400> 64	ctcaaaataca	catcaccaaa	caaattttct	cttattttg	ggctgagtca	tcactagaga	60
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ttctccaagt tgggggctca gaggggagtc atcatgagcg atgttaccat tgtgaaagaa	180
ggttgggttc agaagagggg agaatatata aaaaactgga ggccaagata cttcctttg	240
aagacagatg gtcattcat aggatataaa gagaaacctc aagatgtgga tttaccttat	300
ccctcaaca actttcagt ggcaagtagt gttatgttca gatatttgca gaatttaacc	360
ttaaaccagg tttagaattt ggaatggaga aaaccttgc aaaaattatt ttaaaatgag	420
atcattttta agaaaactat aatgtaacaa tgtcacatat ttccttcttc aggctccaat	480
tcaaattcata ctccaaattt gaaagaacaa aaattccaca aaacgttcat tcttcctac	540
ttttcctta cggtgtacaa caaatgtgga aaaaaaaaaa aaacagaaaa agtgtatccc	600
atcttaatga aaatgactgc ggcagtcaag agtttcaa at ccagctgcca ggggtgaaag	660
caaccctctg catctctgaa agatttcatc agtgttatct ccttataat cataactttt	720
catgtgtatc atctgagttt ctattaaat aatctacta taaaa	765

<210> 65  
<211> 968  
<212> DNA  
<213> Homo sapiens  
  
<220>  
<221> -  
<222> (1)..(968)  
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 65 ctcaaataca catcaccaaaa caaatttctt ctattatttg ggctgagtca tcactagaga	60
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ttctccaagt tgggggctca gaggggagtc atcatgagcg atgttaccat tgtgaaagaa	180
ggttgggttc agaagagggg agaatatata aaaaactgga ggccaagata cttcctttg	240
aagacagatg gtcattcat aggatataaa gagaaacctc aagatgtgga tttaccttat	300
ccctcaaca actttcagt ggcaaaatgc cagttatga aaacagaacg accaaagcca	360
aacacatttta taatcagatg tctccagtgg actactgtta tagagagaac atttcatgt	420
gatactccag aggaaaggga agaatggaca gaagctatcc aggctgtac agacagactg	480
cagaggcaag aagaggagag aatgaattgt agtccaactt cacaaattga taatata	540
gaggaagaga tggatgcctc tacaacccat cataaaagaa agacaatgaa tgatggac	600
tatggaaac tactaggtaa aggcaactttt gggaaagtta tttgggtcg agagaaggca	660

agtggaaaat actatgctat gaagattctg aagaaagaag tcattattgc aaaggtaact 720  
gatttattaa agtgattac taaattttg tttgcagtgt gcatgtgtt gtgggctcat 780  
gaatttacat gctaatgtat gcaaattcca ttaaacaacc naaatatggt tgnagactac 840  
tgctacagta attttgtgt attaatattt gtaatttta aagtttcag acattcataa 900  
tatttgtata ttatatacta aagctattct ctaaggaaa tagaaatgtt tatgtttgca 960  
tgtttggg 968

<210> 66  
<211> 2410  
<212> DNA  
<213> Homo sapiens

<400> 66  
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atthaacago tcgcagttc cccttgaaa cctggaaaag ataagccagc tgctgtctaa 180  
gagtgctcag tgtccactga gagtacacta tctatcatca caatatggtg atgagaggtg 240  
tttatgttt gtgttaattt cccccactaa atcagtaatt attacaatcc tgtccctgct 300  
gtttaccctg cagctgttt tccatttgc gagagagcgg gtgttctctg aggaccgcac 360  
acgtttctat ggtgcagaaa ttgtctctgc ctggactat ctacattccg gaaagattgt 420  
gtaccgtgat ctcaagttgg agaatcta atctggacaaa gatggccaca taaaaattac 480  
agattttgga ct当地caag aaggatcac agatgcagcc accatgaaga cattctgtgg 540  
cactccagaa tatctggcac cagaggtgtt agaagataat gactatggcc gagcagtaga 600  
ctgggtgggc ctaggggttg taatgtatga aatgatgtgt gggaggttac ctttctacaa 660  
ccaggaccat gagaaacttt ttgaattaaat attaatggaa gacattaaat ttcctcgaac 720  
actctcttca gatgcaaaat cattgcttgc agggotcttgc ataaaggatc caaataaaacg 780  
ccttgggtggaa ggaccagatg atgcaaaaga aattatgaga cacagttct tctctggagt 840  
aaactggcaa gatgtatatg ataaaaaagct tgtacctcct tttaaacctc aagtaacatc 900  
tgagacagat actagatatt ttgatgaaga atttacagct cagactatta caataacacc 960  
acctgaaaaa tatgtatgagg atggtatggaa ctgcattggac aatgagagggc ggccgcattt 1020  
ccctcaattt tcctactctg caagtggacg agaataagtc tcttcatttc tgctacttca 1080  
ctgtcatctt caatttatta ctgaaaatga ttccctggaca tcaccagtcc tagctttac 1140

acatagcagg ggcacccccc gacatcccc accagccaa ggtccctcacc cctcgccacc	1200
tttcaccctc atgaaaacac acatacacgc aaatacactc cagttttgt ttttgcata	1260
aattgtatct cagtctaagg tctcatgctg ttgctgctac tgtcttacta ttatagcaac	1320
tttaagaagt aattttccaa cctttggaaag tcatgagccc accattgttc atttgtgcac	1380
caattatcat cttagatct tttagtttt ccctcagtga aggctaaatg agatacactg	1440
attctaggta catttttaa ctttctagaa gagaaaaact aactagacta agaagattta	1500
gtttataaat tcagaacaag caattgtgg agggtgggtgg cgtgcataatg taaagcacat	1560
cagatccgtg cgtgaagtag gcataatatca ctaagctgtg gctggattt attaggaagc	1620
atttggtaga aggactgaac aactgttggg atatatataat atatatataaa ttttttttt	1680
ttaaattcct ggtggatact gttagaagcag cccatatac acatggatgt cgagacttca	1740
cgggcaatca tgagcaagtg aacactgttc taccaagaac tgaaggcata tgcacagtca	1800
aggtcactta aagggtctta taaaacaatt tgagccagag agcatcttc ccctgtgctt	1860
ggaaacctt ttccttctt gacatttac acctctgatg gctgaagaat gttagacaggt	1920
ataatgatac tgctttcac caaaatttct acaccaaggt aaacaggtgt ttgccttatt	1980
taattttta cttagtttc tacgtgaatt agctttct cagatgttga aactttgaat	2040
gtcctttat gatttgttt atattgcagt agtattttt tttagtgat gagaattgtt	2100
tgtcatgtt gcaaacgcag ctccaacttataaaaatag acttactgca gttacttttgc	2160
accatgtgc aaggattgtt cacgctgatg agaatcatgc actttttctc ctctgttaaa	2220
aaaaatgata aggctctgaa atgaaatata ttggtagaa ttggctttggagaagaga	2280
tgctgccatt taacccttg gtactgaaaa tgagaaaatc cccaaactatg catgccaagg	2340
ggtaatgaa acaaatacgat gttgacgtt gctcattaa gaatttggaaa cgttatgttgc	2400
acctggcaac	2410

<210> 67  
 <211> 798  
 <212> DNA  
 <213> Homo sapiens

<400> 67	
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cgcgcgctcg gccggccgtg gggcgaaa taggcgtgac gtgggtcgat gtatcgatc	120
tccggccctt tcccgccccc ccgttatataa gacttcggccg agcactctca ctcgcacaag	180

tggaccgggg	tgttgggtgc	tagtcggcac	cagaggcaag	ggtgcgagga	ccacggccgg	240
ctcggacgtg	tgaccgcgcc	tagggggtgg	cagcgggcag	tgcggggcgg	caaggcgacc	300
atggagcttt	tgcggactat	cacctaccag	ccagccgcca	gcaccaaata	gtgcgagcag	360
gcgctggca	agggttgcgg	agggaaactcg	aagaagaagc	ggccgcccga	gccccccgag	420
aatcgcagc	cacctcagtc	ccaggcgcaa	gtgcccccg	cggccccc	ccaccatcac	480
caccattcgc	actcggggcc	ggagatctcg	cgattatcg	tcgaccccac	gactggaaag	540
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gatttgacaa	ataacaaagt	ctacgcccga	aaaattattc	ctcacagcag	atgtactaaa	660
cctcatcaa	gggaaaaggt	gtgtatgact	cttgagtaaa	gtat	tttctt tgtgtgcaag	720
gatggccctt	ccctgttagg	aaaatgtctt	ctgcatgtgt	aatcactggc	tttccgagg	780
tgactggaag	ctaataag					798

<210> 68  
<211> 877  
<212> DNA  
<213> Homo sapiens

<400> 68	gcgcgccgct	ccgatggaa	gcatgacccg	ggtggcggga	caagacttgc	ttccggccca	60
	cgcgcgctcg	gccggccgtg	gggcggggca	taggcgtgac	gtgggtgcgc	gtatcgagtc	120
	tccgc	ccgtatataa	gacttcgccc	agcactctca	ctcgacacaag		180
	tggaccgggg	tgttgggtgc	tagtcggcac	cagaggcaag	ggtgcgagga	ccacggccgg	240
	ctcggacgtg	tgaccgcgcc	taggggtgg	cagcgggcag	tgcggggcgg	caaggcgacc	300
	atggagcttt	tgcggactat	cacctaccag	ccagccgcca	gcaccaaata	gtgcgagcag	360
	gcgctggca	agggttgcgg	agggaaactcg	aagaagaagc	ggccgcccga	gccccccgag	420
	aatcgcagc	cacctcagtc	ccaggcgcaa	gtgcccccg	cggccccc	ccaccatcac	480
	caccattcgc	actcggggcc	ggagatctcg	cgattatcg	tcgaccccac	gactggaaag	540
	cgctactgcc	ggggcaaagt	gctggaaag	ggtggcttt	caaaatgtta	cgagatgaca	600
	gatttgacaa	ataacaaagt	ctacgcccga	aaaattattc	ctcacagcag	atgtactaaa	660
	cctcatcaa	gggaaaagat	tgacaaagaa	atagagctc	acagaattct	tcatcataag	720
	catgtagtgc	agtttacca	ctacttcgag	gacaaagaaa	acatttacat	tctcttgaa	780
	tactgcagta	gaagggttaag	tgtcaactcc	tatttgagaa	catttgctta	ccccgaatta	840

acatggtatt caaagagtat tttatctggg attaccc

877

<210> 69  
<211> 1349  
<212> DNA  
<213> Homo sapiens

<400> 69  
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tccgcggccct tcccgccctcc ccgttatataa gacttcgccc agcactctca ctcgcacaag 180  
tggaccgggg tggtgggtgc tagtcggcac cagaggcaag ggtgcgagga ccacggccgg 240  
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gaatcgcagc cacctcagtc ccaggcgcaa gtgcggccgg cgccgcctca ccaccatcac 480  
caccattcgc actcggggcc ggagatctcg cggattatcg tcgaccccac gactgggaag 540  
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gatttgacaa ataacaaatgt ctacgcgcac aaaatttattc ctcacagcag agtagctaaa 660  
cctcatcaaa gggaaaatgt tgacaaagaaa atagagcttc acagaattct tcacatcataag 720  
catgttagtgc agtttacca ctacttcgag gacaaagaaa acatttacat tctcttgaa 780  
taactgcagta gaaggctaca gggaaagccaa aagaatgatc tagagtatgt tgaagaatgt 840  
ggacatgtgg tggtacgaaa acaattcccc tgtggcctgc tggactgggt ggaaccagaa 900  
caggctaagg catacagttc ttgactttgg acaatccaag agtgaaccag aatgcagttt 960  
tccttgagat acctgtttta aaaggttttt cagacaattt tgcagaaagg tgcattgatt 1020  
cttaaattct ctctgttgag agcatttcag ccagaggact ttgaaactgt gaatatactt 1080  
cctgtgggg agggagaagg gaggaagctc ccatgttgaa taaaggctgt aattggagca 1140  
gctttggct gcgttaactgt gaactatggc catatataat ttttttcat taatttttga 1200  
agataactgt ggctggaaaa gtgcattccot tgttaataaa ctttttattt attacagccc 1260  
aaagagcagt atttattatc aaaatgtctt ttttttatg ttgaccattt taaaccgttg 1320  
gcaataaaga gatatggaaaac gcagaaaaaa 1349

<210> 70

<211> 538  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> -  
 <222> (1)..(538)  
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 70  
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 ggatgactga gacattatgg gccacgcgct gtgtgtctgc tctcggggaa ctgtcatcat 180  
 tgacaataag cgctacccctt tcatccagaa actgggggag ggtgggttca gctatgtgga 240  
 cctagtggaa gggttacatg atggacactt ctacgccttg aagcgaatcc tgtgtcacga 300  
 gcagcaggac cgggaggagg cccagcgaga agccgacatg catgcctct tcaatcaccc 360  
 caacatcctt cgcctcggtt cttactgtct gagggAACGG ggtgctaAGC atgaggcctg 420  
 gctgctgcta ccattttca aggtcagaaa gactcctgtt tatggagggg gttgcagcag 480  
 agccacctac tcaagggctg tgtgagcagt ccagcatgtt aggaagcagg gaccatgt 538

<210> 71  
 <211> 3308  
 <212> DNA  
 <213> Homo sapiens

<400> 71  
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 ggcagttaggg tccctagcac gtccttgcct tcttggagc tccaagcggc gggagaggca 120  
 ggcgtcagtg gctgcgcctc catgcctgctg cgcggggcgg gacgctgatg gagcgcgc 180  
 tcagccccggg gctgctggta cgggcgtgc tgctgctgt gctgctgggg ctgcggcaa 240  
 ggacgggtggc cgcggggcgc gcccgtggcc tcccagcgcc gacggcggag gggcggttcg 300  
 gcctcggggc ggccgctgct cccacccatcg cgacgcgagt accggcggcg ggcgcgttg 360  
 ctgcggccga ggtgactgtg gaggacgctg aggcgctgcc ggcagccgcg ggagagcagg 420  
 agcctcgggg tccggaacca gacgatgaga cagagttgcg accgcgcggc aggtcattag 480  
 taattatcag cacttagat gggagaattt ctgccttggta tcctgaaaat catgtaaaa 540  
 agcagtggga ttggatgtg ggatccgggtt cttgggtgtc atccagcctt agcaaaccag 600  
 aggtatggaa gaataagatg atcattccctt ccctggatgg agccctcttc cagtggacc 660

gagaccgtga aagcatggaa acagttcctt tcacagttga atcacttctt gaatcttctt 720  
ataaaatttg agatgatgtt gttttggttg gagaaaaatc tctgactaca tatggactca 780  
gtgcata>tag tgaaaaggta aggtatatct gttcagctct gggttgtcgc caatggata 840  
gtgacgaaat ggaacaagag gaagacatcc tgcttctaca gcgtacccaa aaaactgtta 900  
gagctgtcgg acctcgcagt ggcaatgaga agtggattt cagtgttggc cactttgaac 960  
ttcggtatat tccagacatg gaaacgagag ccggatttat taaaagcacc tttaagccca 1020  
atgagaacac agaagagtct aaaatttattt cagatgtgga agaacaggaa gctgccataa 1080  
tggacatagt gataaagggtt tcggttgctg actggaaagt tatggcattc agtaagaagg 1140  
gaggacatct ggaatgggag taccagttt gtactccaat tgcatactgcc tggttactta 1200  
aggatggaa agtcattccc atcagtcttt ttgatgatac aagttataca tctaattgatg 1260  
atgttttaga agatgaagaa gacattgttag aagctgccag aggagccaca gaaaacagtg 1320  
tttacttggg aatgtataga gcccagctgt atctcagtc atcagtcaga atttcagaaa 1380  
agtttccttc aagtcccaag gctttggaaat ctgtcactaa tggaaacgca attattcctt 1440  
taccaacaat caaatggaaa cccttaattc atttccttc cagaactct gtcttggtag 1500  
gatctgatga atttgacaaa tgtctcagta atgataagtt ttctcatgaa gaatatacgta 1560  
atggtgact ttcaatcttg cagtatccat atgataatgg ttattatcta ccatactaca 1620  
agagggagag gaacaaacga agcacacaga ttacagtcag attcctcgac aaccacatt 1680  
acaacaagaa tatccgaaa aaggatcctg ttcttcttt acactggtag aaagaaaatag 1740  
ttgcaacgat tttgtttgt atcatagcaa caacgtttat tgtgcgcagg ctttccatc 1800  
ctcatcctca caggcaaagg aaggagtctg aaactcagtg tcaaactgaa aataaatatg 1860  
attctgtaag tggtaagcc aatgacagta gctggaatga cataaaaaac tctggatata 1920  
tatcacgata tctaactgat tttgagccaa ttcaagtgcct gggacgtgg ggctttggag 1980  
ttgttttga agctaaaaac aaagtagatg actgcaatta tgctatcaag aggatccgtc 2040  
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ttgaacaccc gggcattgtt agatattca atgcctggct cgaagcacca ccagagaagt 2160  
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 <212> DNA  
 <213> Homo sapiens

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<212> DNA
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<212> DNA  
<213> Homo sapiens

<400> 78

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<211> 2234  
<212> DNA  
<213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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	tacagcccg	gcaattcagt	ttctacatca	ggacagcccc	agcctcatcc	atggagacat	180

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 <211> 1237  
 <212> DNA  
 <213> Homo sapiens

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	cgcggcggcac	ttcttgcacg	aggtgcccgc	ctgggtcatg	tgccgcttct	acaaagtgtat	180
	ggacgcctg	gagccccccg	actggtgcca	gttcgcggcc	ctgatgtgc	gcgaccagac	240
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<210> 83  
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<212> DNA  
<213> Homo sapiens  
  
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<222> (1)..(1286)  
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<212> DNA  
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<220>  
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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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gagaaaatctc	cctggtgaca	gagcaaaagc	tcttgatatt	atgattccca	tggtgcaaag	1500
cgaaggacaa	gttgcttcag	atatgtattt	cctagtttgt	cgaatctaca	aagatatgtt	1560

tttggactct aattcacgg acactgaaag cagagaccat ggagcttctt ggtcaaaaa 1620  
ggcatttcaa tctgagccaa cactacagtc aggaattaat tatgcggtcc tcctcctggc 1680  
agctggacac cagttgaat ctcccttga gctccggaaa gttggtaatt acaacttgat 1740  
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attctgacgg ctctccaggt tttgtc 1826

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<211> 476  
<212> DNA  
<213> Homo sapiens

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ctgcaaatgt cttcgtgga agacataagt ggatgttcaa atgagagaat ttgaagtgtt 180  
gaaaaaactc aatcacaaaa atattgtcaa attatttgcatttgaagagg agacaacaac 240  
aagacataaa gtacttatta tgaaattttg tccatgtggg agtttataca ctgttttaga 300  
agaaccttct aatgcctatg gactaccaga atctgaattc ttaattgttt tgcgagatgt 360  
ggtgtggtgga atgaatcatc tacgagagaa tggtagatgt caccgtgata tcaagccagg 420  
aaatatcatg cgtgcactat accattctct cgtagatgtat tcattccacc caccac 476

<210> 87  
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<212> DNA  
<213> Homo sapiens

<220>  
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<222> (1)..(2131)  
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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caggatctta ctggatcca gagtgctagc tgcaaaagct tctggaaatt gtacacttaa 180  
ctctgaagtt ttatcttaa tataggaagt gccgcgtatg atgctgtcct tgacagaaat 240  
gtggccatta agaagctcag cagaccctt cagaacaaaa cacatgccaa gagagcgtac 300

cgggagctgg tcctcatgaa gtgtgtgaac cataaaaaca ttatttagttt attaaatgtc 360  
ttcacacccc agaaaacgct ggaggagttc caagatgttt acttagtaat ggaactgatg 420  
gatgccaaact tatgtcaagt gattcagatg gaatttagacc atgagcgaat gtcttacctg 480  
ctgtacccaa tggtgtgtgg cattaagcac ctccattctg ctggaattat tcacagggat 540  
ttaaaaccaa gtaacattgt agtcaagtct gattgcacat tgaaaatcct ggactttgga 600  
ctggccagga cagcaggcac aagcttcatg atgactccat atgtggtgac acgttattac 660  
agagccccctg aggtcatcct ggggatgggc tacaaggaga acgtggatat atggctgtg 720  
ggatgcatta tgggagaaat ggttcgccac aaaatcctct ttccaggaag ggactatatt 780  
gaccagtgga ataaggtaat tgaacaacta ggaacaccat gtccagaatt catgaagaaa 840  
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cccaaactct tcccagattc cctcttccca gcggactccg agcacaataa actcaaagcc 960  
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tggaaagaac ttatctacaa ggaagtaatg aattcagaag aaaagactaa aaatggtgta 1200  
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gctactgtca gtgtccctcag ggctctacca agacataatg cactgggta ccacatggtc 1920  
catttcattgt gatctattac tctgacataa acccatctgt aatataattgc cagttatataa 1980  
gctgttttagt ttgttaattg attaaactgt atgtcttata agaaaacatg taaaggggga 2040

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<211> 989  
<212> DNA  
<213> Homo sapiens

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aacagcaggg ccatctcaga tcttcactat ggcaacttat gcaagaaact gttgaattag 180  
accggttcc tatagatgag aaaccataca agctgtggta tttatgagcc tccatttctt 240  
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acaagtggat gtgtcatata ttgccaaaca ttacaacatg agcaaaagca aagttgacaa 360  
ccagttctac agtgtggaag tgggagactc aacccctaca gttctcaagc gctaccagaa 420  
tctaaagcct attggctctg gggctcaggg catagttgt gccgcgtatg atgctgtcct 480  
tgacagaaat gtggccatta agaagctcag cagacccttt cagaacccaa cacatgccaa 540  
gagagcgtac cgggagctgg tcctcatgaa gtgtgtgaac cataaaaaacg tgagtttgc 600  
tattttaaa cttctggcag tgggagttt taagattgga aaaagaaaat gtgtctgtac 660  
tttagtaaga aaggcttct ttgctttgca attcctgcct cttaagattt tttatcctgc 720  
caatatgcta cattcgattt cattgtcctc atggtagctt tctgcttaaa aatcacctaa 780  
aaaccatatg atgtgaaatg gatgaatttt ataaatattt ccctagtttag aaaatttacc 840  
atatttggtt atcttgctcc aaattgagag cttcaagaaa gaaacaagac aaacaaagcc 900  
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tttaattttag aatttattaa tttaaaaatt 989

<210> 89  
<211> 1818  
<212> DNA  
<213> Homo sapiens

<400> 89  
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ctccagcctg ggcaacaaga gcgaaactcc atctaaaaaa gaaaaaaaaa gatatatatg	180
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tatgcagcca caggtctta ttttcttact taagtgcctc caactccca taacacaaat	300
taaggcatga tgaacatcct ctctgtgctg aacatcctgt gtatgtcact tcagaagcct	360
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gggtggattc taactccaaa tctaacadct cttctttct ttgttctag cagccatggc	600
aatgacaggc tcaacacctt gtcacatccat gagtaaccac acaaaggaaa gggtgacaat	660
gaccaaagtg acactggaga attttatag caaccttatac gctcaacatg aagaacgaga	720
aatgagacaa aagaagttag aaaaggtgat ggaagaagaa ggcctaaaag atgaggagaa	780
acgactccgg agatcagcac atgctcgaa ggaaacagag tttcttcgtt tgaagagaac	840
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aattccaaaa ggaaagcaga aacctggaaa agaaatagac gtcagctagc cttotccaca	1440
gtaggcactc ctgactacat tgctcctgag gtgttcatgc agaccggta caacaagctc	1500
tgtgatttgtt ggtcgcttgg ggtgatcatg tatgagatgc tcacggtaa gttgcattgtt	1560
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<210> 90  
 <211> 2732  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> -  
 <222> (1)..(2732)  
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 90  
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 tagcaacaat tcttaaagag gttttggaag gcttagacta tctacacaga aacggtcaga 180  
 ttcacaggga tttgaaagct ggtaatattc ttctgggtga ggatggttca gtacaaatag 240  
 cagattttgg ggtaagtgcg ttcctagcaa cagggggtga tggtaaccga aataaaagtaa 300  
 gaaaaacatt cggtggcacc ccatgttgaa tggctcctga agtcatggaa caggtgagag 360  
 gctatgactt caaggctgac atgtggagtt ttggaataac tgccattgaa ttagcaacag 420  
 gagcagcgcc ttatcacaaa tatcctccca tgaaagtgtt aatgttgact ttgcaaaaatg 480.  
 atccacccac tttggaaaca ggggttagagg ataaagaaaat gatgaaaaag tacggcaagt 540  
 ccttagaaa attactttca ctgtgtcttc agaaagatcc ttccaaaagg cccacagcag 600  
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gcacgactgt tgctcatttt tccaaaagct attaatatt cttagcaatc aatttggata	1560
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 <211> 1416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature

<222> (1)..(1416)

<223> "n" may be any nucleotide 'a', 'c', 'g' or 't'

<400> 91

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tagcaacaat	tcttaaagag	gttttggaaag	gcttagacta	tctacacaga	aacggtcaga	180
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gaaaaacatt	cgttggcacc	ccatgttgg	tggctcctga	agtcatggaa	caggtgagag	360
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ccttagaaaa	attacttca	ctgtgtcttc	agaaagatcc	ttccaaaagg	cccacagcag	600
cagaactttt	aaaatgcaaa	ttcttccaga	aagccaagaa	cagagagtac	ctgattgaga	660
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ctggcttgg	ggatggtcac	gatgttagtt	tagtggctgc	taatttacag	aagattgttag	1140
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aagcctagat	cattttgctt	gcagtttgt	ttgcaactt	accataaaga	caaaattaca	1380
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<210> 92

<211> 434

<212> PRT

<213> Homosapiens

<400> 92

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Leu Phe Val Ser Thr Leu Asp Gly Ser Leu His Ala Val Ser Lys Arg  
35 40 45

Thr Gly Ser Ile Lys Trp Thr Leu Lys Glu Asp Pro Val Leu Gln Val  
50 55 60

Pro Thr His Val Glu Glu Pro Ala Phe Leu Pro Asp Pro Asn Asp Gly  
65 70 75 80

Ser Leu Tyr Thr Leu Gly Ser Lys Asn Asn Glu Gly Leu Thr Lys Leu  
85 90 95

Pro Phe Thr Ile Pro Glu Leu Val Gln Ala Ser Pro Cys Arg Ser Ser  
100 105 110

Asp Gly Ile Leu Tyr Met Gly Lys Lys Gln Asp Ile Trp Tyr Val Ile  
115 120 125

Asp Leu Leu Thr Gly Glu Lys Gln Gln Thr Leu Ser Ser Ala Phe Ala  
130 135 140

Asp Ser Leu Cys Pro Ser Thr Ser Leu Leu Tyr Leu Gly Arg Thr Glu  
145 150 155 160

Tyr Thr Ile Thr Met Tyr Asp Thr Lys Thr Arg Glu Leu Arg Trp Asn  
165 170 175

Ala Thr Tyr Phe Asp Tyr Ala Ala Ser Leu Pro Glu Asp Glu Gly Asp  
180 185 190

Tyr Lys Met Ser His Phe Val Ser Asn Gly Asp Gly Leu Val Val Thr  
195 200 205

Val Asp Ser Glu Ser Gly Asp Val Leu Trp Ile Gln Asn Tyr Ala Ser  
210 215 220

Pro Val Val Ala Phe Tyr Val Trp Gln Arg Glu Gly Leu Arg Lys Val  
225 230 235 240

Met His Ile Asn Val Ala Val Glu Thr Leu Arg Tyr Leu Thr Phe Met  
245 250 255

Ser Gly Glu Val Gly Arg Ile Thr Lys Trp Lys Tyr Pro Phe Pro Lys  
260 265 270

Glu Thr Glu Ala Lys Ser Lys Leu Thr Pro Thr Leu Tyr Val Gly Lys  
275 280 285

Tyr Ser Thr Ser Leu Tyr Ala Ser Pro Ser Met Val His Glu Gly Val  
290 295 300

Ala Val Val Pro Arg Gly Ser Thr Leu Pro Leu Leu Glu Gly Pro Gln  
305 310 315 320

Thr Asp Gly Val Thr Ile Gly Asp Lys Gly Glu Cys Val Ile Thr Pro  
325 330 335

Ser Thr Asp Val Lys Phe Asp Pro Gly Leu Lys Ser Lys Asn Lys Leu  
340 345 350

Asn Tyr Leu Arg Asn Tyr Trp Leu Leu Ile Gly His His Glu Thr Pro  
355 360 365

Leu Ser Ala Ser Thr Lys Met Leu Glu Arg Phe Pro Asn Asn Leu Pro  
370 375 380

Lys His Arg Glu Asn Val Ile Pro Ala Asp Ser Glu Lys Lys Ser Phe  
385 390 395 400

Glu Glu Thr Leu Leu Gln Met Thr Ser Val Phe Ser Trp Ile Leu Asn  
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Leu Pro Ser Lys Glu Glu Val Phe Ala Phe Leu Arg Ile Phe Glu Lys  
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Asn Met

<210> 93  
<211> 232  
<212> PRT  
<213> Homo sapiens

<400> 93

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Asp Lys Lys Lys Met Glu Leu Ser Leu Asn Ile Pro Val Asn His Gly  
20 25 30

Pro Gln Glu Glu Ser Cys Gly Ser Ser Gln Leu His Glu Asn Ser Gly  
35 40 45

Ser Pro Glu Thr Ser Arg Ser Leu Pro Ala Pro Gln Asp Asn Asp Phe  
50 55 60

Leu Ser Arg Lys Ala Gln Asp Cys Tyr Phe Met Lys Leu His His Cys  
65 70 75 80

Pro Gly Asn His Ser Trp Asp Ser Thr Ile Ser Gly Ser Gln Arg Ala  
85 90 95

Ala Phe Cys Asp His Lys Thr Thr Pro Cys Ser Ser Ala Ile Ile Asn

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Phe	Ala	Lys	Val	Ile	Val	Gln	Lys	Leu	Lys	Asp	Asn	Lys	Gln	Met	Gly
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						20			25				30		
Leu	Leu	Pro	Glu	Pro	Ser	Ile	Arg	Ser	Val	Met	Gln	Lys	Tyr	Leu	Glu
						35			40			45			
Asp	Arg	Gly	Glu	Val	Thr	Phe	Glu	Lys	Ile	Phe	Ser	Gln	Lys	Leu	Gly
						50		55			60				
Tyr	Leu	Leu	Phe	Arg	Asp	Phe	Cys	Leu	Asn	His	Leu	Glu	Ala	Arg	
								65		70		75		80	
Pro	Leu	Val	Glu	Phe	Tyr	Glu	Glu	Ile	Lys	Lys	Tyr	Glu	Lys	Leu	Glu
								85		90			95		
Thr	Glu	Glu	Glu	Arg	Val	Ala	Arg	Ser	Arg	Glu	Ile	Phe	Asp	Ser	Tyr
								100		105			110		
Ile	Met	Lys	Glu	Leu	Leu	Ala	Cys	Ser	His	Pro	Phe	Ser	Lys	Ser	Ala
								115		120			125		

Thr Glu His Val Gln Gly His Leu Gly Lys Lys Gln Val Pro Pro Asp  
130 135 140

Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Gln Asn Leu Arg Gly Asp  
145 150 155 160

Val Phe Gln Lys Phe Ile Glu Arg Val Ala Leu Ala Ala Gly Ala Ala  
165 170 175

Thr Leu Pro Ala Val Pro Ser Cys Pro Asn Pro Gln His Pro Gly Ser  
180 185 190

Gly Thr Thr Ala Arg His Leu Gln Val Gly Pro Tyr Trp Pro Arg Leu  
195 200 205

Ala

<210> 95  
<211> 454  
<212> PRT  
<213> Homo sapiens

<400> 95

Met Gly Leu Val Ser Ser Lys Lys Pro Asp Lys Glu Lys Pro Ile Lys  
1 5 10 15

Glu Lys Asp Lys Gly Gln Trp Ser Pro Leu Lys Val Ser Ala Gln Asp  
20 25 30

Lys Asp Ala Pro Pro Leu Pro Pro Leu Val Val Phe Asn His Leu Thr  
35 40 45

Pro Pro Pro Pro Asp Glu His Leu Asp Glu Asp Lys His Phe Val Val  
50 55 60

Ala Leu Tyr Asp Tyr Thr Ala Met Asn Asp Arg Asp Leu Gln Met Leu  
65 70 75 80

Lys Gly Glu Lys Leu Gln Val Leu Lys Gly Thr Gly Asp Trp Trp Leu  
85 90 95

Ala Arg Ser Leu Val Thr Gly Arg Glu Gly Tyr Val Pro Ser Asn Phe  
100 105 110

Val Ala Arg Val Glu Ser Leu Glu Met Glu Arg Trp Phe Phe Arg Ser  
115 120 125

Gln Gly Arg Lys Glu Ala Glu Arg Gln Leu Leu Ala Pro Ile Asn Lys  
130 135 140

Ala Gly Ser Phe Leu Ile Arg Glu Ser Glu Thr Asn Lys Gly Ala Phe  
145 150 155 160

Ser Leu Ser Val Lys Asp Val Thr Thr Gln Gly Glu Leu Ile Lys His  
165 170 175

Tyr Lys Ile Arg Cys Leu Asp Glu Gly Gly Tyr Tyr Ile Ser Pro Arg  
180 185 190

Ile Thr Phe Pro Ser Leu Gln Ala Leu Val Gln His Tyr Ser Ser Tyr  
195 200 205

Tyr Lys Asn Asn Met Lys Val Ala Ile Lys Thr Leu Lys Glu Gly Thr  
210 215 220

Met Ser Pro Glu Ala Phe Leu Gly Glu Ala Asn Val Met Lys Ala Leu  
225 230 235 240

Gln His Glu Arg Leu Val Arg Leu Tyr Ala Val Val Thr Lys Glu Pro  
245 250 255

Ile Tyr Ile Val Thr Glu Tyr Met Ala Arg Gly Cys Leu Leu Asp Phe  
260 265 270

Leu Lys Thr Asp Glu Gly Ser Arg Leu Ser Leu Pro Arg Leu Ile Asp  
275 280 285

Met Ser Ala Gln Ile Ala Glu Gly Met Ala Tyr Ile Glu Arg Met Asn  
290 295 300

Ser Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Glu Ala  
305 310 315 320

Leu Cys Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Ile Ile Asp Ser  
325 330 335

Glu Tyr Thr Ala Gln Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala  
340 345 350

Pro Glu Ala Ile His Phe Gly Val Phe Thr Ile Lys Ala Asp Val Trp  
355 360 365

Ser Phe Gly Val Leu Leu Met Glu Val Val Thr Tyr Gly Arg Val Pro  
370 375 380

Tyr Pro Gly Met Ser Asn Pro Glu Val Ile Arg Asn Leu Glu Arg Gly  
385 390 395 400

Tyr Arg Met Pro Arg Pro Asp Thr Cys Pro Pro Glu Leu Tyr Arg Gly  
405 410 415

Val Ile Ala Glu Cys Trp Arg Ser Arg Pro Glu Glu Arg Pro Thr Phe  
420 425 430

Glu Phe Leu Gln Ser Val Leu Glu Asp Phe Tyr Thr Ala Thr Glu Arg  
435 440 445

Gln Tyr Glu Leu Gln Pro  
450

<210> 96

<211> 82

<212> PRT  
<213> Homo sapiens

<400> 96

Met Glu Asn Phe Gln Lys Val Glu Lys Ile Gly Glu Gly Thr Tyr Gly  
1 5 10 15

Val Val Tyr Lys Ala Arg Asn Lys Leu Thr Gly Glu Val Val Ala Leu  
20 25 30

Lys Lys Ile Arg Leu Asp Thr Glu Thr Glu Gly Val Pro Ser Thr Ala  
35 40 45

Ile Arg Glu Ile Ser Leu Leu Lys Glu Leu Asn His Pro Asn Ile Val  
50 55 60

Lys Leu Leu Asp Val Ile His Thr Glu Asn Lys Asn Ile Ser Leu Lys  
65 70 75 80

Glu Gly

<210> 97  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 97

Met Thr Arg Asp Glu Ala Leu Pro Asp Ser His Ser Ala Gln Asp Phe  
1 5 10 15

Tyr Glu Asn Tyr Glu Pro Lys Glu Ile Leu Gly Arg Gly Val Ser Ser  
20 25 30

Val Val Arg Arg Cys Ile His Lys Pro Thr Ser Gln Glu Tyr Ala Val  
35 40 45

Lys Val Ile Asp Val Thr Gly Gly Ser Phe Ser Pro Glu Glu Val  
50 55 60

Arg Glu Leu Arg Glu Ala Thr Leu Lys Glu Val Asp Ile Leu Arg Lys  
65 70 75 80

Val Ser Gly His Pro Asn Ile Ser Ile Gln Leu Lys Asp Thr Tyr Glu  
85 90 95

Thr Asn Thr Phe Phe Leu Val Phe Asp Leu Met Lys Arg Gly Glu  
100 105 110

Leu Phe Asp Leu Pro His  
115

<210> 98  
<211> 167  
<212> PRT

<213> Homo sapiens

<400> 98

Val Phe Leu Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn  
1 5 10 15

Arg Ile Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr  
20 25 30

Gln Thr Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu  
35 40 45

Lys Asp Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu  
50 55 60

Arg Leu Arg His Pro Asn Ile Val Glu Leu Lys Glu Val Val Val Gly  
65 70 75 80

Asn His Leu Glu Ser Ile Phe Leu Val Met Gly Tyr Cys Glu Gln Asp  
85 90 95

Leu Ala Ser Leu Leu Glu Asn Met Pro Thr Pro Phe Ser Glu Ala Gln  
100 105 110

Val Lys Cys Ile Val Leu Gln Val Leu Arg Gly Leu Gln Tyr Leu His  
115 120 125

Arg Asn Phe Ile Ile His Arg Asp Leu Lys Val Ser Asn Leu Leu Met  
130 135 140

Thr Asp Lys Gly Cys Val Lys Thr Gly Gly Cys Asn Leu Gly Gln Ala  
145 150 155 160

Trp Ser Leu Asp Gly Thr Trp  
165

<210> 99

<211> 141

<212> PRT

<213> Homo sapiens

<400> 99

Met Ser Ser Ala Gly Gly Val Ser Arg Arg Leu Ala Ala Val Arg Ser  
1 5 10 15

Thr Val Leu Cys Arg Ala Val Gly Cys Ile Leu Ala Glu Leu Leu Ala  
20 25 30

His Arg Pro Leu Leu Pro Gly Thr Ser Glu Ile His Gln Ile Asp Leu  
35 40 45

Ile Val Gln Leu Leu Gly Thr Pro Ser Glu Asn Ile Trp Pro Gly Phe  
50 55 60

Ser Lys Leu Pro Leu Val Gly Gln Tyr Ser Leu Arg Lys Gln Pro Tyr

65

70

75

80

Asn Asn Leu Lys His Lys Phe Pro Trp Leu Ser Glu Ala Gly Leu Arg  
85 90 95

Leu Leu His Phe Leu Phe Met Tyr Asp Pro Lys Lys Arg Ala Thr Ala  
100 105 110

Gly Asp Cys Leu Glu Ser Ser Tyr Phe Lys Glu Lys Pro Leu Arg Leu  
115 120 125

Pro Ile Ser Gly Val Cys Glu Gly Cys Arg Glu Pro Gly  
130 135 140

<210> 100

<211> 119

<212> PRT

<213> Homo sapiens

<400> 100

Val Phe Leu Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn  
1 5 10 15

Arg Ile Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr  
20 25 30

Gln Thr Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu  
35 40 45

Lys Asp Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu  
50 55 60

Arg Leu Arg His Pro Asn Ile Leu Pro Ala Arg Ala Pro Trp Lys Gly  
65 70 75 80

Arg Ser Gly Gly Ser Ile Arg Gly Cys Arg Gly Leu Met Trp Ser Ser  
85 90 95

Ser Leu Cys Trp Lys Cys Ala Thr Thr Ala Ser Trp Glu Glu Trp Trp  
100 105 110

Val Gln Ser Pro Arg Cys Leu  
115

<210> 101

<211> 756

<212> PRT

<213> Homo sapiens

<400> 101

Met Gly Glu Ala Glu Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp  
1 5 10 15

Ile Asn Val Gln Leu Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln  
20 25 30

Lys Ser Tyr Lys Ala Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly  
35 40 45

Leu Tyr Gln Glu Thr Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe  
50 55 60

Ala Glu Gly Lys Pro Leu Ala Leu Pro Val Arg Thr Ser Tyr Lys Ala  
65 70 75 80

Phe Ser Thr Arg Trp Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys  
85 90 95

Tyr Pro Asp Leu Pro Arg Asn Ala Gln Val Ala Leu Thr Ile Trp Asp  
100 105 110

Val Tyr Gly Pro Gly Lys Ala Val Pro Val Gly Gly Thr Thr Val Ser  
115 120 125

Leu Phe Gly Lys Tyr Gly Met Phe Arg Gln Gly Met His Asp Leu Lys  
130 135 140

Val Trp Pro Asn Val Glu Ala Asp Gly Ser Glu Pro Thr Lys Thr Pro  
145 150 155 160

Gly Arg Thr Ser Ser Thr Leu Ser Glu Asp Gln Met Ser Arg Leu Ala  
165 170 175

Lys Leu Thr Lys Ala His Arg Gln Gly His Met Val Lys Val Asp Trp  
180 185 190

Leu Asp Arg Leu Thr Phe Arg Glu Ile Glu Met Ile Asn Glu Ser Val  
195 200 205

Lys Arg Ser Ser Asn Phe Met Tyr Leu Met Gly Gly Phe Arg Cys Val  
210 215 220

Lys Cys Asp Asp Lys Glu Tyr Gly Ile Val Tyr Tyr Glu Lys Asp Gly  
225 230 235 240

Asp Glu Ser Ser Pro Ile Leu Thr Ser Phe Glu Leu Val Lys Val Pro  
245 250 255

Asp Pro Gln Met Ser Leu Glu Asn Leu Val Glu Ser Lys His His Asn  
260 265 270

Leu Pro Arg Ser Leu Arg Ser Gly Pro Ser Asp His Asp Leu Lys Pro  
275 280 285

Tyr Pro Ser Pro Arg Asp Gln Leu Lys Asn Ile Val Ser Tyr Pro Pro  
290 295 300

Ser Lys Pro Pro Thr Tyr Glu Glu Gln Asp Leu Val Trp Glu Phe Arg  
305 310 315 320

Tyr Tyr Leu Thr Asn Gln Asp Lys Ala Leu Thr Lys Ile Leu Thr Ser  
325 330 335

Val Ile Trp Asp Leu Pro Gln Glu Ala Lys Gln Ala Leu Ala Leu Leu  
340 345 350

Gly Lys Trp Asn Pro Met Asp Val Glu Asp Ser Leu Glu Leu Ile Ser  
355 360 365

Ser His Tyr Thr Asn Pro Thr Val Arg Arg Tyr Ala Val Ala Arg Leu  
370 375 380

Arg Gln Ala Asp Asp Glu Asp Leu Leu Met Tyr Leu Leu Gln Leu Val  
385 390 395 400

Gln Ala Leu Lys Tyr Glu Asn Phe Asp Asp Ile Lys Asn Gly Leu Glu  
405 410 415

Pro Thr Lys Lys Asp Ser Gln Ser Ser Val Ser Glu Asn Val Ser Asn  
420 425 430

Ser Gly Ile Asn Ser Ala Glu Ile Asp Ser Ser Gln Ile Ile Thr Ser  
435 440 445

Pro Leu Pro Ser Val Ser Ser Pro Pro Pro Ala Ser Lys Thr Lys Glu  
450 455 460

Val Pro Asp Gly Glu Asn Leu Glu Gln Asp Leu Cys Thr Phe Leu Ile  
465 470 475 480

Ser Arg Ala Cys Lys Asn Ser Thr Leu Ala Asn Tyr Leu Tyr Trp Tyr  
485 490 495

Val Ile Val Glu Cys Glu Asp Gln Asp Thr Gln Gln Arg Asp Pro Lys  
500 505 510

Thr His Glu Met Tyr Leu Asn Val Met Arg Arg Phe Ser Gln Ala Leu  
515 520 525

Leu Lys Gly Asp Lys Ser Val Arg Val Met Arg Ser Leu Leu Ala Ala  
530 535 540

Gln Gln Thr Phe Val Asp Arg Leu Val His Leu Met Lys Ala Val Gln  
545 550 555 560

Arg Glu Ser Gly Asn Arg Lys Lys Asn Glu Arg Leu Gln Ala Leu  
565 570 575

Leu Gly Asp Asn Glu Lys Met Asn Leu Ser Asp Val Glu Leu Ile Pro  
580 585 590

Leu Pro Leu Glu Pro Gln Val Lys Ile Arg Gly Ile Ile Pro Glu Thr  
595 600 605

Ala Thr Leu Phe Lys Ser Ala Leu Met Pro Ala Gln Leu Phe Phe Lys  
610 615 620

Thr Glu Asp Gly Gly Lys Tyr Pro Val Ile Phe Lys His Gly Asp Asp  
625 630 635 640

Leu Arg Gln Asp Gln Leu Ile Leu Gln Ile Ile Ser Leu Met Asp Lys  
645 650 655

Leu Leu Arg Lys Glu Asn Leu Asp Leu Lys Leu Thr Pro Tyr Lys Val  
660 665 670

Leu Ala Thr Ser Thr Lys His Gly Phe Met Gln Phe Ile Gln Ser Val  
675 680 685

Pro Val Ala Glu Val Leu Asp Thr Glu Gly Ser Ile Gln Asn Phe Phe  
690 695 700

Arg Lys Tyr Ala Pro Ser Glu Asn Gly Pro Asn Gly Ile Ser Ala Glu  
705 710 715 720

Val Met Asp Thr Tyr Val Lys Ser Cys Ala Gly Tyr Cys Val Ile Thr  
725 730 735

Tyr Ile Leu Gly Val Gly Asp Arg His Leu Asp Asn Leu Leu Leu Thr  
740 745 750

Lys Thr Gly Gly  
755

<210> 102  
<211> 508  
<212> PRT  
<213> Homo sapiens

<400> 102

Met Gly Glu Ala Glu Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp  
1 5 10 15

Ile Asn Val Gln Leu Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln  
20 25 30

Lys Ser Tyr Lys Ala Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly  
35 40 45

Leu Tyr Gln Glu Thr Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe  
50 55 60

Ala Glu Gly Lys Pro Leu Ala Leu Pro Val Arg Thr Ser Tyr Lys Ala  
65 70 75 80

Phe Ser Thr Arg Trp Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys  
85 90 95

Tyr Pro Asp Leu Pro Arg Asn Ala Gln Val Ala Leu Thr Ile Trp Asp  
100 105 110

Val Tyr Gly Pro Gly Lys Ala Val Pro Val Gly Gly Thr Thr Val Ser  
115 120 125

Leu Phe Gly Lys Tyr Gly Met Phe Arg Gln Gly Met His Asp Leu Lys

130                    135                    140  
Val Trp Pro Asn Val Glu Ala Asp Gly Ser Glu Pro Thr Lys Thr Pro  
145                    150                    155                    160  
Gly Arg Thr Ser Ser Thr Leu Ser Glu Asp Gln Met Ser Arg Leu Ala  
165                    170                    175  
Lys Leu Thr Lys Ala His Arg Gln Gly His Met Val Lys Val Asp Trp  
180                    185                    190  
Leu Asp Arg Leu Thr Phe Arg Glu Ile Glu Met Ile Asn Glu Ser Val  
195                    200                    205  
Lys Arg Ser Ser Asn Phe Met Tyr Leu Met Gly Gly Phe Arg Cys Val  
210                    215                    220  
Lys Cys Asp Asp Lys Glu Tyr Gly Ile Val Tyr Tyr Glu Lys Asp Gly  
225                    230                    235                    240  
Asp Glu Ser Ser Pro Ile Leu Thr Ser Phe Glu Leu Val Lys Val Pro  
245                    250                    255  
Asp Pro Gln Met Ser Leu Glu Asn Leu Val Glu Ser Lys His His Asn  
260                    265                    270  
Leu Pro Arg Ser Leu Arg Ser Gly Pro Ser Asp His Asp Leu Lys Pro  
275                    280                    285  
Tyr Pro Ser Pro Arg Asp Gln Leu Lys Asn Ile Val Ser Tyr Pro Pro  
290                    295                    300  
Ser Lys Pro Pro Thr Tyr Glu Glu Gln Asp Leu Val Trp Glu Phe Arg  
305                    310                    315                    320  
Tyr Tyr Leu Thr Asn Gln Asp Lys Ala Leu Thr Lys Ile Leu Thr Ser  
325                    330                    335  
Val Ile Trp Asp Leu Pro Gln Glu Ala Lys Gln Ala Leu Ala Leu Leu  
340                    345                    350  
Gly Lys Trp Asn Pro Met Asp Val Glu Asp Ser Leu Glu Leu Ile Ser  
355                    360                    365  
Ser His Tyr Thr Asn Pro Thr Val Arg Arg Tyr Ala Val Ala Arg Leu  
370                    375                    380  
Arg Gln Ala Asp Asp Glu Asp Leu Leu Met Tyr Leu Leu Gln Leu Val  
385                    390                    395                    400  
Gln Ala Leu Lys Tyr Glu Asn Phe Asp Asp Ile Lys Asn Gly Leu Glu  
405                    410                    415  
Pro Thr Lys Lys Asp Ser Gln Ser Ser Val Ser Glu Asn Val Ser Asn  
420                    425                    430  
Ser Gly Ile Asn Ser Ala Glu Ile Asp Ser Ser Gln Ile Ile Thr Ser

435

440

445

Pro Leu Pro Ser Val Ser Ser Pro Pro Pro Ala Ser Lys Thr Lys Glu  
450 455 460

Val Pro Asp Gly Glu Asn Leu Glu Gln Asp Leu Cys Thr Phe Leu Ile  
465 470 475 480

Ser Arg Ala Cys Lys Asn Ser Thr Leu Ala Asn Tyr Leu Tyr Trp Tyr  
485 490 495

Val Lys Ile Ile Phe Cys Leu Phe Ser Tyr Tyr Pro  
500 505

<210> 103  
<211> 140  
<212> PRT  
<213> Homo sapiens

<400> 103

Met Gly Asn Ala Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val  
1 5 10 15

Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu  
20 25 30

Ser Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys  
35 40 45

Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys  
50 55 60

Glu Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val  
65 70 75 80

Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu  
85 90 95

Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys  
100 105 110

Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu  
115 120 125

Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Arg  
130 135 140

<210> 104  
<211> 156  
<212> PRT  
<213> Homo sapiens

<400> 104

Met Val Val Phe Asn Gly Leu Leu Lys Ile Lys Ile Cys Glu Ala Val  
1 5 10 15

Ser Leu Lys Pro Thr Ala Trp Ser Leu Arg His Ala Val Gly Pro Arg  
20 25 30

Pro Gln Thr Phe Leu Leu Asp Pro Tyr Ile Ala Leu Asn Val Asp Asp  
35 40 45

Ser Arg Ile Gly Gln Thr Ala Thr Lys Gln Lys Thr Asn Ser Pro Ala  
50 55 60

Trp His Asp Glu Phe Val Thr Asp Val Cys Asn Gly Arg Lys Ile Glu  
65 70 75 80

Leu Ala Val Phe His Asp Ala Pro Ile Gly Tyr Asp Asp Phe Val Ala  
85 90 95

Asn Cys Thr Ile Gln Phe Glu Glu Leu Leu Gln Asn Gly Ser Arg His  
100 105 110

Phe Glu Asp Trp Ile Asp Leu Glu Pro Glu Gly Arg Val Tyr Val Ile  
115 120 125

Ile Asp Leu Ser Gly Ser Ser Gly Glu Val Lys Ile Pro Asn Ser Ala  
130 135 140

Phe Cys Glu Arg Glu Arg Val Glu Met Arg His Ser  
145 150 155

<210> 105

<211> 520

<212> PRT

<213> Homo sapiens

<400> 105

Met Ile Leu Ile Pro Arg Met Leu Leu Val Leu Phe Leu Leu Pro  
1 5 10 15

Ile Leu Ser Ser Ala Lys Ala Gln Val Asn Pro Ala Ile Cys Arg Tyr  
20 25 30

Pro Leu Gly Met Ser Gly Gly Gln Ile Pro Asp Glu Asp Ile Thr Ala  
35 40 45

Ser Ser Gln Trp Ser Glu Ser Thr Ala Ala Lys Tyr Gly Arg Leu Asp  
50 55 60

Ser Glu Glu Gly Asp Gly Ala Trp Cys Pro Glu Ile Pro Val Glu Pro  
65 70 75 80

Asp Asp Leu Lys Glu Phe Leu Gln Ile Asp Leu His Thr Leu His Phe  
85 90 95

Ile Thr Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly His Gly Ile  
100 105 110

Glu Phe Ala Pro Met Tyr Lys Ile Asn Tyr Ser Arg Asp Gly Thr Arg

115                    120                    125

Trp Ile Ser Trp Arg Asn Arg His Gly Lys Gln Val Leu Asp Gly Asn  
130                    135                    140

Ser Asn Pro Tyr Asp Ile Phe Leu Lys Asp Leu Glu Pro Pro Ile Val  
145                    150                    155                    160

Ala Arg Phe Val Arg Phe Ile Pro Val Thr Asp His Ser Met Asn Val  
165                    170                    175

Cys Met Arg Val Glu Leu Tyr Gly Cys Val Trp Leu Asp Gly Leu Val  
180                    185                    190

Ser Tyr Asn Ala Pro Ala Gly Gln Gln Phe Val Leu Pro Gly Gly Ser  
195                    200                    205

Ile Ile Tyr Leu Asn Asp Ser Val Tyr Asp Gly Ala Val Gly Tyr Ser  
210                    215                    220

Met Thr Glu Gly Leu Gly Gln Leu Thr Asp Gly Val Ser Gly Leu Asp  
225                    230                    235                    240

Asp Phe Thr Gln Thr His Glu Tyr His Val Trp Pro Gly Tyr Asp Tyr  
245                    250                    255

Val Gly Trp Arg Asn Glu Ser Ala Thr Asn Gly Tyr Ile Glu Ile Met  
260                    265                    270

Phe Glu Phe Asp Arg Ile Arg Asn Phe Thr Thr Met Lys Val His Cys  
275                    280                    285

Asn Asn Met Phe Ala Lys Gly Val Lys Ile Phe Lys Glu Val Gln Cys  
290                    295                    300

Tyr Phe Arg Ser Glu Ala Ser Glu Trp Glu Pro Asn Ala Ile Ser Phe  
305                    310                    315                    320

Pro Leu Val Leu Asp Asp Val Asn Pro Ser Ala Arg Phe Val Thr Val  
325                    330                    335

Pro Leu His His Arg Met Ala Ser Ala Ile Lys Cys Gln Tyr His Phe  
340                    345                    350

Ala Asp Thr Trp Met Met Phe Ser Glu Ile Thr Phe Gln Ser Asp Ala  
355                    360                    365

Ala Met Tyr Asn Asn Ser Glu Ala Leu Pro Thr Ser Pro Met Ala Pro  
370                    375                    380

Thr Thr Tyr Asp Pro Met Leu Lys Val Asp Asp Ser Asn Thr Arg Ile  
385                    390                    395                    400

Leu Ile Gly Cys Leu Val Ala Ile Ile Phe Ile Leu Leu Ala Ile Ile  
405                    410                    415

Val Ile Ile Leu Trp Arg Gln Phe Trp Gln Lys Met Leu Glu Lys Ala

420

425

430

Ser Arg Arg Met Leu Asp Asp Glu Met Thr Val Ser Leu Ser Leu Pro  
435 440 445

Ser Asp Ser Ser Met Phe Asn Asn Asn Arg Ser Ser Ser Pro Ser Glu  
450 455 460

Gln Gly Ser Asn Ser Thr Tyr Asp Arg Ile Phe Pro Leu Arg Pro Asp  
465 470 475 480

Tyr Gln Glu Pro Ser Arg Leu Ile Arg Lys Leu Pro Glu Phe Ala Pro  
485 490 495

Gly Glu Glu Glu Ser Gly Glu Asp Asp Val Val Glu Gln Gly Val Lys  
500 505 510

Gly Glu Thr Ser Ala Ser Ile Arg  
515 520

<210> 106

<211> 284

<212> PRT

<213> Homo sapiens

<400> 106

Met Ala Asn Phe Gln Glu His Leu Ser Cys Ser Ser Ser Pro His Leu  
1 5 10 15

Pro Phe Ser Glu Ser Lys Thr Phe Asn Gly Leu Gln Asp Glu Leu Thr  
20 25 30

Ala Met Gly Asn His Pro Ser Pro Lys Leu Leu Glu Asp Gln Gln Glu  
35 40 45

Lys Gly Met Val Arg Thr Glu Leu Ile Glu Ser Val His Ser Pro Val  
50 55 60

Thr Thr Thr Val Leu Thr Ser Val Ser Glu Asp Ser Arg Asp Gln Phe  
65 70 75 80

Glu Asn Ser Val Leu Gln Leu Arg Glu His Asp Glu Ser Glu Thr Ala  
85 90 95

Val Ser Gln Gly Asn Ser Asn Thr Val Asp Gly Glu Ser Thr Ser Gly  
100 105 110

Thr Glu Asp Ile Lys Ile Gln Phe Ser Arg Ser Gly Ser Gly Ser Gly  
115 120 125

Gly Phe Leu Glu Gly Leu Phe Gly Cys Leu Arg Pro Val Trp Asn Ile  
130 135 140

Ile Gly Lys Ala Tyr Ser Thr Asp Tyr Lys Phe Met Gln Gln Asp Thr  
145 150 155 160

Trp Glu Val Pro Phe Glu Glu Ile Ser Glu Leu Gln Trp Leu Gly Ser  
165 170 175

Gly Ala Gln Gly Ala Val Phe Leu Gly Lys Phe Arg Ala Glu Glu Val  
180 185 190

Ala Ile Lys Lys Val Arg Glu Gln Asn Glu Thr Asp Ile Lys His Leu  
195 200 205

Arg Lys Leu Lys His Pro Asn Ile Ile Ala Phe Lys Gly Val Cys Thr  
210 215 220

Gln Ala Pro Cys Tyr Cys Ile Ile Met Glu Tyr Cys Ala His Gly Gln  
225 230 235 240

Leu Tyr Glu Val Leu Arg Ala Gly Arg Lys Ile Thr Pro Arg Leu Leu  
245 250 255

Val Asp Trp Ser Thr Gly Ile Ala Ser Gly Met Asn Tyr Leu His Leu  
260 265 270

His Lys Ile Ile His Arg Asp Leu Lys Ser Pro Lys  
275 280

<210> 107

<211> 185

<212> PRT

<213> Homo sapiens

<400> 107

Met Cys Gly Gln Arg Trp Ile His Asn Phe Thr Cys Leu Ala Phe Leu  
1 5 10 15

Phe His Thr Leu Lys Ser Gly Asn Lys Ser Val His Leu Arg Lys Ala  
20 25 30

Ser Ser Pro Asn Leu His Arg Arg Gln Trp Glu Lys Asn Val Pro Asn  
35 40 45

Thr Ala Leu Thr Ala Leu Glu Asn Ala Ser Ile Leu Thr Ser Ser Leu  
50 55 60

Thr Ala Glu Asp Asp Arg Gly Gly Ser Val Ile Lys Tyr Ser Lys Asn  
65 70 75 80

Thr Thr Arg Lys Gln Trp Leu Lys Glu Thr Pro Asp Thr Leu Leu Asn  
85 90 95

Ile Leu Lys Asn Ala Asp Leu Ser Leu Ala Phe Gln Thr Tyr Thr Ile  
100 105 110

Tyr Arg Pro Gly Ser Glu Gly Phe Leu Lys Gly Pro Leu Ser Glu Glu  
115 120 125

Thr Glu Ala Ser Asp Ser Val Asp Gly Gly His Asp Ser Val Ile Leu  
130 135 140

Asp Pro Glu Arg Leu Glu Pro Gly Leu Asp Glu Glu Asp Thr Asp Phe  
145 150 155 160

Glu Glu Glu Asp Asp Asn Pro Asp Trp Val Ser Glu Leu Lys Lys Arg  
165 170 175

Ala Gly Trp Gln Gly Leu Cys Asp Arg  
180 185

<210> 108

<211> 83

<212> PRT

<213> Homo sapiens

<400> 108

Met Ala Pro Pro Ser Glu Glu Thr Pro Leu Ile Pro Gln Arg Ser Cys  
1 5 10 15

Ser Leu Leu Ser Thr Glu Ala Gly Ala Leu His Val Leu Leu Pro Ala  
20 25 30

Arg Gly Pro Gly Pro Pro Gln Arg Leu Ser Phe Ser Phe Gly Val Pro  
35 40 45

Val Arg Pro Val Gly Ala Asn Gly Pro Pro Leu Thr Ser Gly Phe Leu  
50 55 60

Gly Gly Trp Ala Glu Ala Ser Val Gln Arg Gly Leu Trp Lys Cys Leu  
65 70 75 80

Leu Thr Glu

<210> 109

<211> 213

<212> PRT

<213> Homo sapiens

<400> 109

Met Ala Glu Ser Ala Gly Ala Ser Ser Phe Phe Pro Leu Val Val Leu  
1 5 10 15

Leu Leu Ala Gly Ser Gly Gly Ser Gly Pro Arg Gly Val Gln Ala Leu  
20 25 30

Leu Cys Ala Cys Thr Ser Cys Leu Gln Ala Asn Tyr Thr Cys Glu Thr  
35 40 45

Asp Gly Ala Cys Met Val Ser Ile Phe Asn Leu Asp Gly Met Glu His  
50 55 60

His Val Arg Thr Cys Ile Pro Lys Val Glu Leu Val Pro Ala Gly Lys  
65 70 75 80

Pro Phe Tyr Cys Leu Ser Ser Glu Asp Leu Arg Asn Thr His Cys Cys  
85 90 95

Tyr Thr Asp Tyr Cys Asn Arg Ile Asp Leu Arg Val Pro Ser Gly His  
100 105 110

Leu Lys Glu Pro Glu His Pro Ser Met Trp Gly Pro Val Glu Leu Val  
115 120 125

Gly Ile Ile Ala Gly Pro Val Phe Leu Leu Phe Leu Ile Ile Ile Ile  
130 135 140

Val Phe Leu Val Ile Asn Tyr His Gln Arg Val Tyr His Asn Arg Gln  
145 150 155 160

Arg Leu Asp Met Glu Asp Pro Ser Cys Glu Met Cys Leu Ser Lys Asp  
165 170 175

Lys Thr Leu Gln Asp Leu Val Tyr Asp Leu Ser Thr Ser Gly Ser Gly  
180 185 190

Ser Gly Thr Lys Phe Phe Arg Ala Ser Cys Leu Trp Leu Ala Phe Ile  
195 200 205

Ser Phe Pro Ala Gly  
210

<210> 110  
<211> 383  
<212> PRT  
<213> Homo sapiens

<400> 110

Met Asp Glu Gln Glu Ala Leu Asn Ser Ile Met Asn Asp Leu Val Ala  
1 5 10 15

Leu Gln Met Asn Arg Arg His Arg Met Pro Gly Tyr Glu Thr Met Lys  
20 25 30

Asn Lys Asp Thr Gly His Ser Asn Arg Gln Ser Asp Val Arg Ile Lys  
35 40 45

Phe Glu His Asn Gly Glu Arg Arg Ile Ile Ala Phe Ser Arg Pro Val  
50 55 60

Lys Tyr Glu Asp Val Glu His Lys Val Thr Thr Val Phe Gly Gln Pro  
65 70 75 80

Leu Asp Leu His Tyr Met Asn Asn Glu Leu Ser Ile Leu Leu Lys Asn  
85 90 95

Gln Asp Asp Leu Asp Lys Ala Ile Asp Ile Leu Asp Arg Ser Ser Ser  
100 105 110

Met Lys Ser Leu Arg Ile Leu Leu Ser Gln Asp Arg Asn His Asn  
115 120 125

Ser Ser Ser Pro His Ser Glu Val Ser Arg Gln Val Arg Ile Lys Ala  
130 135 140

Ser Gln Ser Ala Gly Asp Ile Asn Thr Ile Tyr Gln Pro Pro Glu Pro  
145 150 155 160

Arg Ser Arg His Leu Ser Val Ser Ser Gln Asn Pro Gly Arg Ser Ser  
165 170 175

Pro Pro Pro Gly Tyr Val Pro Glu Arg Gln Gln His Ile Ala Arg Gln  
180 185 190

Gly Ser Tyr Thr Ser Ile Asn Ser Glu Gly Glu Phe Ile Pro Glu Thr  
195 200 205

Ser Glu Gln Cys Met Leu Asp Pro Leu Ser Ser Ala Glu Asn Ser Leu  
210 215 220

Ser Gly Ser Cys Gln Ser Leu Asp Arg Ser Ala Asp Ser Pro Ser Phe  
225 230 235 240

Arg Lys Ser Arg Met Ser Arg Ala Gln Ser Phe Pro Asp Asn Arg Gln  
245 250 255

Glu Tyr Ser Asp Arg Glu Thr Gln Leu Tyr Asp Lys Gly Val Lys Gly  
260 265 270

Gly Thr Tyr Pro Arg Arg Tyr His Val Ser Val His His Lys Asp Tyr  
275 280 285

Ser Asp Gly Arg Arg Thr Phe Pro Arg Ile Arg Arg His Gln Gly Asn  
290 295 300

Leu Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu  
305 310 315 320

Asn Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg  
325 330 335

Ser Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro  
340 345 350

Thr Lys Cys Glu Glu Leu Ser Leu Ala Arg Arg Arg Leu Pro Arg Trp  
355 360 365

Ser Gln Thr Ser Tyr Gly Gly Lys Gln Leu Gly Pro Trp Asp Pro  
370 375 380

<210> 111

<211> 414

<212> PRT

<213> Homo sapiens

<400> 111

Met Asp Glu Gln Glu Ala Leu Asn Ser Ile Met Asn Asp Leu Val Ala

1

5

10

15

Leu Gln Met Asn Arg Arg His Arg Met Pro Gly Tyr Glu Thr Met Lys  
20 25 30

Asn Lys Asp Thr Gly His Ser Asn Arg Gln Lys Lys His Asn Ser Ser  
35 40 45

Ser Ser Ala Leu Leu Asn Ser Pro Thr Val Thr Thr Ser Ser Cys Ala  
50 55 60

Gly Ala Ser Glu Lys Lys Phe Leu Ser Asp Val Arg Ile Lys Phe  
65 70 75 80

Glu His Asn Gly Glu Arg Arg Ile Ile Ala Phe Ser Arg Pro Val Lys  
85 90 95

Tyr Glu Asp Val Glu His Lys Val Thr Thr Val Phe Gly Gln Pro Leu  
100 105 110

Asp Leu His Tyr Met Asn Asn Glu Leu Ser Ile Leu Leu Lys Asn Gln  
115 120 125

Asp Asp Leu Asp Lys Ala Ile Asp Ile Leu Asp Arg Ser Ser Ser Met  
130 135 140

Lys Ser Leu Arg Ile Leu Leu Leu Ser Gln Asp Arg Asn His Asn Ser  
145 150 155 160

Ser Ser Pro His Ser Glu Val Ser Arg Gln Val Arg Ile Lys Ala Ser  
165 170 175

Gln Ser Ala Gly Asp Ile Asn Thr Ile Tyr Gln Pro Pro Glu Pro Arg  
180 185 190

Ser Arg His Leu Ser Val Ser Ser Gln Asn Pro Gly Arg Ser Ser Pro  
195 200 205

Pro Pro Gly Tyr Val Pro Glu Arg Gln Gln His Ile Ala Arg Gln Gly  
210 215 220

Ser Tyr Thr Ser Ile Asn Ser Glu Gly Glu Phe Ile Pro Glu Thr Ser  
225 230 235 240

Glu Gln Cys Met Leu Asp Pro Leu Ser Ser Ala Glu Asn Ser Leu Ser  
245 250 255

Gly Ser Cys Gln Ser Leu Asp Arg Ser Ala Asp Ser Pro Ser Phe Arg  
260 265 270

Lys Ser Arg Met Ser Arg Ala Gln Ser Phe Pro Asp Asn Arg Gln Glu  
275 280 285

Tyr Ser Asp Arg Glu Thr Gln Leu Tyr Asp Lys Gly Val Lys Gly Gly  
290 295 300

Thr Tyr Pro Arg Arg Tyr His Val Ser Val His His Lys Asp Tyr Ser

305

310

315

320

Asp Gly Arg Arg Thr Phe Pro Arg Ile Arg Arg His Gln Gly Asn Leu  
325 330 335

Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu Asn  
340 345 350

Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg Ser  
355 360 365

Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro Thr  
370 375 380

Lys Cys Glu Glu Leu Ser Leu Ala Arg Arg Arg Leu Pro Arg Trp Ser  
385 390 395 400

Gln Thr Ser Tyr Gly Gly Lys Gln Leu Gly Pro Trp Asp Pro  
405 410

<210> 112

<211> 201

<212> PRT

<213> Homo sapiens

<400> 112

Met Ala Lys Gln Tyr Asp Ser Val Glu Cys Pro Phe Cys Asp Glu Val  
1 5 10 15

Ser Lys Tyr Glu Lys Leu Ala Lys Ile Gly Gln Gly Thr Phe Gly Glu  
20 25 30

Val Phe Lys Ala Arg His Arg Lys Thr Gly Gln Lys Val Ala Leu Lys  
35 40 45

Lys Val Leu Met Glu Asn Glu Lys Glu Gly Phe Pro Ile Thr Ala Leu  
50 55 60

Arg Glu Ile Lys Ile Leu Gln Leu Leu Lys His Glu Asn Val Val Asn  
65 70 75 80

Leu Ile Glu Ile Cys Arg Thr Lys Ala Ser Pro Tyr Asn Arg Cys Lys  
85 90 95

Gly Ser Ile Tyr Leu Val Phe Asp Phe Cys Glu His Asp Leu Ala Gly  
100 105 110

Leu Leu Ser Asn Val Leu Val Lys Phe Thr Leu Ser Glu Ile Lys Arg  
115 120 125

Val Met Gln Met Leu Leu Asn Gly Leu Tyr Tyr Asn His Asp Phe Phe  
130 135 140

Trp Ser Asp Pro Met Pro Ser Asp Leu Lys Gly Met Leu Ser Thr His  
145 150 155 160

Leu Thr Ser Met Phe Glu Tyr Leu Ala Pro Pro Arg Arg Lys Gly Ser  
165 170 175

Gln Ile Thr Gln Gln Ser Thr Asn Gln Ser Arg Asn Pro Ala Thr Thr  
180 185 190

Asn Gln Thr Glu Phe Glu Arg Val Phe  
195 200

<210> 113  
<211> 125  
<212> PRT  
<213> Homo sapiens

<400> 113

Met Ala Thr Ser Arg Tyr Glu Pro Val Ala Glu Ile Gly Val Gly Ala  
1 5 10 15

Tyr Gly Thr Val Tyr Lys Ala Arg Asp Pro His Ser Gly His Phe Cys  
20 25 30

Ala Leu Lys Ser Val Arg Val Pro Asn Gly Gly Gly Gly Gly  
35 40 45

Leu Pro Ile Ser Thr Val Arg Glu Val Ala Leu Leu Arg Arg Leu Glu  
50 55 60

Ala Phe Glu His Pro Asn Val Val Arg Leu Met Asp Val Cys Ala Thr  
65 70 75 80

Ser Arg Thr Asp Arg Glu Ile Lys Val Thr Leu Val Phe Glu His Val  
85 90 95

Asp Gln Asp Leu Arg Thr Tyr Leu Asp Lys Ala Pro Pro Gly Leu  
100 105 110

Pro Ala Glu Thr Ile Lys Val Ser Gly Val Gly Arg His  
115 120 125

<210> 114  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 114

Met Ala Thr Ser Arg Tyr Glu Pro Val Ala Glu Ile Gly Val Gly Ala  
1 5 10 15

Tyr Gly Thr Val Tyr Lys Ala Arg Asp Pro His Ser Gly His Phe Cys  
20 25 30

Ala Leu Lys Ser Val Arg Val Pro Thr His Leu Ser Phe  
35 40 45

<210> 115

<211> 160  
<212> PRT  
<213> Homo sapiens

<400> 115

Met Gly Val Cys Pro Gly Lys Thr Pro Phe Cys Ser Pro Lys Pro Gln  
1 5 10 15

Gly Leu Ala Arg Gly His Trp Ser Arg Arg Arg Asp Ile Cys Val Thr  
20 25 30

Gly Pro Leu Pro Leu Glu Pro Arg Ala Val Tyr Cys Lys Asp Val Leu  
35 40 45

Asp Ile Glu Gln Phe Ser Thr Val Lys Gly Val Asn Leu Asp His Thr  
50 55 60

Asp Asp Asp Phe Tyr Ser Lys Phe Ser Thr Gly Ser Val Ser Ile Pro  
65 70 75 80

Trp Gln Asn Glu Met Ile Glu Thr Glu Cys Phe Lys Glu Leu Asn Val  
85 90 95

Phe Gly Pro Asn Gly Thr Leu Pro Pro Asp Leu Asn Arg Asn His Pro  
100 105 110

Pro Glu Pro Pro Lys Lys Gly Leu Leu Gln Arg Leu Phe Lys Arg Gln  
115 120 125

His Gln Asn Asn Ser Lys Ser Ser Pro Ser Ser Lys Thr Ser Phe Asn  
130 135 140

His His Ile Asn Ser Asn His Val Ser Ser Asn Ser Thr Gly Ser Ser  
145 150 155 160

<210> 116  
<211> 300  
<212> PRT  
<213> Homo sapiens

<220>  
<221> -  
<222> (1)...(300)  
<223> "XAA" can be any amino acid

<400> 116

Met Pro Arg Ala Arg Met Pro Xaa Pro Arg Ala His Ser Lys Ala Gly  
1 5 10 15

Cys Pro Cys Gly Cys Pro Arg Asp Pro Leu Thr Leu Leu Ser Pro Ser  
20 25 30

Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile Pro Glu  
35 40 45

Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met Ala Pro  
50 55 60

Glu Val Leu Asn Asn Gln Arg Tyr Gly Leu Ser Pro Asp Tyr Trp Gly  
65 70 75 80

Leu Gly Cys Leu Ile Tyr Glu Met Ile Glu Gly Gln Ser Pro Phe Arg  
85 90 95

Gly Arg Lys Glu Lys Val Lys Arg Glu Glu Val Asp Arg Arg Val Leu  
100 105 110

Glu Thr Glu Glu Val Tyr Ser His Lys Phe Ser Glu Glu Ala Lys Ser  
115 120 125

Ile Cys Lys Met Leu Leu Thr Lys Asp Ala Lys Gln Arg Leu Gly Cys  
130 135 140

Gln Glu Glu Gly Ala Ala Glu Val Lys Arg His Pro Phe Phe Arg Asn  
145 150 155 160

Met Asn Phe Lys Arg Leu Glu Ala Gly Met Leu Asp Pro Pro Phe Val  
165 170 175

Pro Asp Pro Arg Ala Val Tyr Cys Lys Asp Val Leu Asp Ile Glu Gln  
180 185 190

Phe Ser Thr Val Lys Gly Val Asn Leu Asp His Thr Asp Asp Asp Phe  
195 200 205

Tyr Ser Lys Phe Ser Thr Gly Ser Val Ser Ile Pro Trp Gln Asn Glu  
210 215 220

Met Ile Glu Thr Glu Cys Phe Lys Glu Leu Asn Val Phe Gly Pro Asn  
225 230 235 240

Gly Thr Leu Pro Pro Asp Leu Asn Arg Asn His Pro Pro Glu Pro Pro  
245 250 255

Lys Lys Gly Leu Leu Gln Arg Leu Phe Lys Arg Gln His Gln Asn Asn  
260 265 270

Ser Lys Ser Ser Pro Ser Ser Lys Thr Ser Phe Asn His His Ile Asn  
275 280 285

Ser Asn His Val Ser Ser Asn Ser Thr Gly Ser Ser  
290 295 300

<210> 117  
<211> 169  
<212> PRT  
<213> Homo sapiens

<220>  
<221> -  
<222> (1)..(169)

<223> "XAA" can be any amino acid

<400> 117

Met Arg Met Pro Arg Ala Arg Met Pro Xaa Pro Arg Ala His Ser Lys  
1 5 10 15

Ala Gly Cys Pro Cys Gly Cys Pro Arg Asp Pro Leu Thr Leu Leu Ser  
20 25 30

Pro Ser Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile  
35 40 45

Pro Glu Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met  
50 55 60

Ala Pro Glu Val Leu Asn Asn Gln Arg Tyr Gly Leu Ser Pro Asp Tyr  
65 70 75 80

Trp Gly Leu Gly Cys Leu Ile Tyr Glu Met Ile Glu Gly Gln Ser Pro  
85 90 95

Phe Arg Gly Arg Lys Glu Lys Val Lys Arg Glu Glu Val Asp Arg Arg  
100 105 110

Val Leu Glu Thr Glu Glu Val Tyr Ser His Lys Phe Ser Glu Glu Ala  
115 120 125

Lys Ser Ile Cys Lys Met Val Ser Ser Trp Trp Pro Asp Ala Thr Leu  
130 135 140

Lys Leu Val Ala Pro Ser Leu Gly Leu Ala Pro Val Cys Pro Gln Asn  
145 150 155 160

Ser Lys Gln Ala Glu Gly Thr Gly Val  
165

<210> 118

<211> 319

<212> PRT

<213> Homo sapiens

<400> 118

Met Ala Pro Phe Leu Arg Ile Ala Phe Asn Ser Tyr Glu Leu Gly Ser  
1 5 10 15

Leu Gln Ala Glu Asp Glu Ala Asn Gln Pro Phe Cys Ala Val Lys Met  
20 25 30

Lys Glu Ala Leu Ser Thr Glu Arg Gly Lys Thr Leu Val Gln Lys Lys  
35 40 45

Pro Thr Met Tyr Pro Glu Trp Lys Ser Thr Phe Asp Ala His Ile Tyr  
50 55 60

Glu Gly Arg Val Ile Gln Ile Val Leu Met Arg Ala Ala Glu Glu Pro  
65 70 75 80

Val Ser Glu Val Thr Val Gly Val Ser Val Leu Ala Glu Arg Cys Lys  
85 90 95

Lys Asn Asn Gly Lys Ala Glu Phe Trp Leu Asp Leu Gln Pro Gln Ala  
100 105 110

Lys Val Leu Met Ser Val Gln Tyr Phe Leu Glu Asp Val Asp Cys Lys  
115 120 125

Gln Ser Met Arg Ser Glu Asp Glu Ala Lys Phe Pro Thr Met Asn Arg  
130 135 140

Arg Gly Ala Ile Lys Gln Ala Lys Ile His Tyr Ile Lys Asn His Glu  
145 150 155 160

Phe Ile Ala Thr Phe Phe Gly Gln Pro Thr Phe Cys Ser Val Cys Lys  
165 170 175

Asp Phe Val Trp Gly Leu Asn Lys Gln Gly Tyr Lys Cys Arg Gln Cys  
180 185 190

Asn Ala Ala Ile His Lys Lys Cys Ile Asp Lys Ile Ile Gly Arg Cys  
195 200 205

Thr Gly Thr Ala Ala Asn Ser Arg Asp Thr Ile Phe Gln Lys Glu Arg  
210 215 220

Phe Asn Ile Asp Met Pro His Arg Phe Lys Val His Asn Tyr Met Ser  
225 230 235 240

Pro Thr Phe Cys Asp His Cys Gly Ser Leu Leu Leu Pro Ala Pro His  
245 250 255

Asp Lys His Gln Trp Asp Cys Gly Asp Phe Cys Cys Trp Pro Arg Pro  
260 265 270

Cys Pro Gln Ser Val Leu Gly Cys Arg Leu Ala Gly Leu Ser Trp Tyr  
275 280 285

Phe Leu Cys Glu Leu Cys Val Asn Leu Leu Phe Leu Cys Leu Arg Arg  
290 295 300

Glu Ile Val Asn Pro Val Phe His Tyr Leu Asn Val Val Ile Tyr  
305 310 315

<210> 119  
<211> 236  
<212> PRT  
<213> Homo sapiens

<400> 119

Met Asp Glu Thr His Pro Gly Tyr Gly Lys Glu Val Asp Leu Glu Phe  
1 5 10 15

Leu Val Ser Pro Ser Leu Pro Cys Leu Leu Ser Phe Ala Gly Ser Ala  
20 25 30

Arg His Leu Val Pro Pro Asp Ser Asn Leu Phe Ser Lys Leu Trp Ala  
35 40 45

Cys Gly Val Ile Leu Phe Thr Leu Leu Ala Gly Ser Pro Pro Phe Trp  
50 55 60

His Arg Arg Gln Ile Leu Met Leu Arg Met Ile Met Glu Gly Gln Tyr  
65 70 75 80

Gln Phe Ser Ser Pro Glu Trp Asp Asp Arg Ser Ser Thr Val Lys Asp  
85 90 95

Leu Ile Ser Arg Leu Leu Gln Val Asp Pro Glu Ala Arg Leu Thr Ala  
100 105 110

Glu Gln Ala Leu Gln His Pro Phe Phe Glu Arg Cys Glu Gly Ser Gln  
115 120 125

Pro Trp Asn Leu Thr Pro Arg Gln Arg Phe Arg Val Ala Val Trp Thr  
130 135 140

Val Leu Ala Ala Gly Arg Val Ala Leu Ser Thr His Arg Val Arg Pro  
145 150 155 160

Leu Thr Lys Asn Ala Leu Leu Arg Asp Pro Tyr Ala Leu Arg Ser Val  
165 170 175

Arg His Leu Ile Asp Asn Cys Ala Phe Arg Leu Tyr Gly His Trp Val  
180 185 190

Lys Lys Gly Glu Gln Gln Asn Arg Ala Ala Leu Phe Gln His Arg Pro  
195 200 205

Pro Gly Pro Phe Pro Ile Met Gly Pro Glu Glu Gly Asp Ser Ala  
210 215 220

Ala Ile Thr Glu Asp Glu Ala Val Leu Val Leu Gly  
225 230 235

<210> 120  
<211> 572  
<212> PRT  
<213> Homo sapiens

<400> 120

Met Ala Phe Cys Ala Lys Met Arg Ser Ser Lys Lys Thr Glu Val Asn  
1 5 10 15

Leu Glu Ala Pro Glu Pro Gly Val Glu Val Ile Phe Tyr Leu Ser Asp  
20 25 30

Arg Glu Pro Leu Arg Leu Gly Ser Gly Glu Tyr Thr Ala Glu Glu Leu

35

40

45

Cys Ile Arg Ala Ala Gln Ala Cys Arg Ile Ser Pro Leu Cys His Asn  
50 55 60

Leu Phe Ala Leu Tyr Asp Glu Asn Thr Lys Leu Trp Tyr Ala Pro Asn  
65 70 75 80

Arg Thr Ile Thr Val Asp Asp Lys Met Ser Leu Arg Leu His Tyr Arg  
85 90 95

Met Arg Phe Tyr Phe Thr Asn Trp His Gly Thr Asn Asp Asn Glu Gln  
100 105 110

Ser Val Trp Arg His Ser Pro Lys Lys Gln Lys Asn Gly Tyr Glu Lys  
115 120 125

Lys Lys Ile Pro Asp Ala Thr Pro Leu Leu Asp Ala Ser Ser Leu Glu  
130 135 140

Tyr Leu Phe Ala Gln Gly Gln Tyr Asp Leu Val Lys Cys Leu Ala Pro  
145 150 155 160

Ile Arg Asp Pro Lys Thr Glu Gln Asp Gly His Asp Ile Glu Asn Glu  
165 170 175

Cys Leu Gly Met Ala Val Leu Ala Ile Ser His Tyr Ala Met Met Lys  
180 185 190

Lys Met Gln Leu Pro Glu Leu Pro Lys Asp Ile Ser Tyr Lys Arg Tyr  
195 200 205

Ile Pro Glu Thr Leu Asn Lys Ser Ile Arg Gln Arg Asn Leu Leu Thr  
210 215 220

Arg Met Arg Ile Asn Asn Val Phe Lys Asp Phe Leu Lys Glu Phe Asn  
225 230 235 240

Asn Lys Thr Ile Cys Asp Ser Ser Val Ser Thr His Asp Leu Lys Val  
245 250 255

Lys Tyr Leu Ala Thr Leu Glu Thr Leu Thr Lys His Tyr Gly Ala Glu  
260 265 270

Ile Phe Glu Thr Ser Met Leu Leu Ile Ser Ser Glu Asn Glu Met Asn  
275 280 285

Trp Phe His Ser Asn Asp Gly Gly Asn Val Leu Tyr Tyr Glu Val Met  
290 295 300

Val Thr Gly Asn Leu Gly Ile Gln Trp Arg His Lys Pro Asn Val Val  
305 310 315 320

Ser Val Glu Lys Glu Lys Asn Lys Leu Lys Arg Lys Lys Leu Glu Asn  
325 330 335

Lys Asp Lys Lys Asp Glu Glu Lys Asn Lys Ile Arg Glu Glu Trp Asn

340

345

350

Asn Phe Ser Phe Pro Glu Ile Thr His Ile Val Ile Lys Glu Ser  
355 360 365

Val Val Ser Ile Asn Lys Gln Asp Asn Lys Lys Met Glu Leu Lys Leu  
370 375 380

Ser Ser His Glu Glu Ala Leu Ser Phe Val Ser Leu Val Asp Gly Tyr  
385 390 395 400

Phe Arg Leu Thr Ala Asp Ala His His Tyr Leu Cys Thr Asp Val Ala  
405 410 415

Pro Pro Leu Ile Val His Asn Ile Gln Asn Gly Cys His Gly Pro Ile  
420 425 430

Cys Thr Glu Tyr Ala Ile Asn Lys Leu Arg Gln Glu Gly Ser Glu Glu  
435 440 445

Gly Met Tyr Val Leu Arg Trp Ser Cys Thr Asp Phe Asp Asn Ile Leu  
450 455 460

Met Thr Val Thr Cys Phe Glu Lys Ser Glu Gln Val Gln Gly Ala Gln  
465 470 475 480

Lys Gln Phe Lys Asn Phe Gln Ile Glu Val Gln Lys Gly Arg Tyr Ser  
485 490 495

Leu His Gly Ser Asp Arg Ser Phe Pro Ser Leu Gly Asp Leu Met Ser  
500 505 510

His Leu Lys Lys Gln Ile Leu Arg Thr Asp Asn Ile Ser Phe Met Leu  
515 520 525

Lys Arg Cys Cys Gln Pro Lys Pro Arg Gly Ser Leu Pro Val Pro Glu  
530 535 540

Pro Gly Cys Ile Pro Ser Val Ile Ala Glu Thr Gln Ile Asp Gln Asn  
545 550 555 560

Thr Leu Thr Asp Leu Asn Lys Val Asp Pro Pro Pro  
565 570

<210> 121

<211> 311

<212> PRT

<213> Homo sapiens

<400> 121

Met Gly Cys Val Gln Cys Lys Asp Lys Glu Ala Thr Lys Leu Thr Glu  
1 5 10 15

Glu Arg Asp Gly Ser Leu Asn Gln Ser Ser Gly Tyr Arg Tyr Gly Thr  
20 25 30

Asp Pro Thr Pro Gln His Tyr Pro Ser Phe Gly Val Thr Ser Ile Pro  
35 40 45

Asn Tyr Asn Asn Phe His Ala Ala Gly Gly Gln Gly Leu Thr Val Phe  
50 55 60

Gly Gly Val Asn Ser Ser His Thr Gly Thr Leu Arg Thr Arg Gly  
65 70 75 80

Gly Thr Gly Val Thr Leu Phe Val Ala Leu Tyr Asp Tyr Glu Ala Arg  
85 90 95

Thr Glu Asp Asp Leu Ser Phe His Lys Gly Glu Lys Phe Gln Ile Leu  
100 105 110

Asn Ser Ser Glu Gly Asp Trp Trp Glu Ala Arg Ser Leu Thr Thr Gly  
115 120 125

Glu Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Val Asp Ser Ile  
130 135 140

Gln Ala Glu Glu Trp Tyr Phe Gly Lys Leu Gly Arg Lys Asp Ala Glu  
145 150 155 160

Arg Gln Leu Leu Ser Phe Gly Asn Pro Arg Gly Thr Phe Leu Ile Arg  
165 170 175

Glu Ser Glu Thr Thr Lys Gly Ala Tyr Ser Leu Ser Ile Arg Asp Trp  
180 185 190

Asp Asp Met Lys Gly Asp His Val Lys His Tyr Lys Ile Arg Lys Leu  
195 200 205

Asp Asn Gly Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Glu Thr Leu  
210 215 220

Gln Gln Leu Val Gln His Tyr Ser Glu Arg Ala Ala Gly Leu Cys Cys  
225 230 235 240

Arg Leu Val Val Pro Cys His Lys Gly Met Pro Arg Leu Thr Asp Leu  
245 250 255

Ser Val Lys Thr Lys Asp Val Trp Glu Ile Pro Arg Glu Ser Leu Gln  
260 265 270

Leu Ile Lys Arg Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly  
275 280 285

Met Leu Arg Leu Asn Tyr Ser Leu Ile Ser Phe Pro Val Trp Lys Ile  
290 295 300

Pro Asn Thr Lys Asp Gly Arg  
305 310

<210> 122

<211> 387

<212> PRT

<213> Homo sapiens

<400> 122

Met Gly Cys Val Gln Cys Lys Asp Lys Glu Ala Thr Lys Leu Thr Glu  
1 5 10 15

Glu Arg Asp Gly Ser Leu Asn Gln Ser Ser Gly Tyr Arg Tyr Gly Thr  
20 25 30

Asp Pro Thr Pro Gln His Tyr Pro Ser Phe Gly Val Thr Ser Ile Pro  
35 40 45

Asn Tyr Asn Asn Phe His Ala Ala Gly Gly Gln Gly Leu Thr Val Phe  
50 55 60

Gly Gly Val Asn Ser Ser Ser His Thr Gly Thr Leu Arg Thr Arg Gly  
65 70 75 80

Gly Thr Gly Val Thr Leu Phe Val Ala Leu Tyr Asp Tyr Glu Ala Arg  
85 90 95

Thr Glu Asp Asp Leu Ser Phe His Lys Gly Glu Lys Phe Gln Ile Leu  
100 105 110

Asn Ser Ser Glu Gly Asp Trp Trp Glu Ala Arg Ser Leu Thr Thr Gly  
115 120 125

Glu Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Val Asp Ser Ile  
130 135 140

Gln Ala Glu Glu Trp Tyr Phe Gly Lys Leu Gly Arg Lys Asp Ala Glu  
145 150 155 160

Arg Gln Leu Leu Ser Phe Gly Asn Pro Arg Gly Thr Phe Leu Ile Arg  
165 170 175

Glu Ser Glu Thr Thr Lys Gly Ala Tyr Ser Leu Ser Ile Arg Asp Trp  
180 185 190

Asp Asp Met Lys Gly Asp His Val Lys His Tyr Lys Ile Arg Lys Leu  
195 200 205

Asp Asn Gly Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Glu Thr Leu  
210 215 220

Gln Gln Leu Val Gln His Tyr Ser Glu Arg Ala Ala Gly Leu Cys Cys  
225 230 235 240

Arg Leu Val Val Pro Cys His Lys Gly Met Pro Arg Leu Thr Asp Leu  
245 250 255

Ser Val Lys Thr Lys Asp Val Trp Glu Ile Pro Arg Glu Ser Leu Gln  
260 265 270

Leu Ile Lys Arg Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly  
275 280 285

Thr Trp Asn Gly Asn Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly  
290 295 300

Thr Met Ser Pro Glu Ser Phe Leu Glu Glu Ala Gln Ile Met Lys Lys  
305 310 315 320

Leu Lys His Asp Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu  
325 330 335

Pro Ile Tyr Ile Val Thr Glu Tyr Met Asn Lys Gly Trp Ala Thr Pro  
340 345 350

Leu Leu Ser Pro Ala His Ser Ala Leu Arg Gly Cys Leu Gly Glu Arg  
355 360 365

Asn Gly Ser Phe Leu Leu Ala Thr Phe Leu Val Ser Ala Trp Val Lys  
370 375 380

Tyr Ser His  
385

<210> 123  
<211> 516  
<212> PRT  
<213> Homo sapiens

<400> 123

Met Arg Leu Glu Leu Pro Ala Gly His Trp Glu Arg Pro Asp Leu Glu  
1 5 10 15

Leu Leu Glu Lys Ser Thr Gln Gln Gly Arg Ala Trp Asp Leu Glu Leu  
20 25 30

Leu Glu Lys Gly Ala Gly Ser Leu Pro Leu Tyr Val Trp Lys Val Ser  
35 40 45

Leu Ser Leu Leu Glu Leu His Lys Arg Arg Lys Ala Leu Thr Glu Pro  
50 55 60

Glu Ala Arg Tyr Tyr Leu Arg Gln Ile Val Leu Gly Cys Gln Tyr Leu  
65 70 75 80

His Arg Asn Arg Val Ile His Arg Asp Leu Lys Leu Gly Asn Leu Phe  
85 90 95

Leu Asn Glu Asp Leu Glu Val Lys Ile Gly Asp Phe Gly Leu Ala Thr  
100 105 110

Lys Val Glu Tyr Asp Gly Glu Arg Lys Lys Thr Leu Cys Gly Thr Pro  
115 120 125

Asn Tyr Ile Ala Pro Glu Val Leu Ser Lys Lys Gly His Ser Phe Glu  
130 135 140

Val Asp Val Trp Ser Ile Gly Cys Ile Met Tyr Thr Leu Leu Val Gly

145                    150                    155                    160  
Lys Pro Pro Phe Glu Thr Ser Cys Leu Lys Glu Thr Tyr Leu Arg Ile  
165                    170                    175  
Lys Lys Asn Glu Tyr Ser Ile Pro Lys His Ile Asn Pro Val Ala Ala  
180                    185                    190  
Ser Leu Ile Gln Lys Met Leu Gln Thr Asp Pro Thr Ala Arg Pro Thr  
195                    200                    205  
Ile Asn Glu Leu Leu Asn Asp Glu Phe Phe Thr Ser Gly Tyr Ile Pro  
210                    215                    220  
Ala Arg Leu Pro Ile Thr Cys Leu Thr Ile Pro Pro Arg Phe Ser Ile  
225                    230                    240  
Ala Pro Ser Ser Leu Asp Pro Ser Asn Arg Lys Pro Leu Thr Val Leu  
245                    250                    255  
Asn Lys Gly Leu Glu Asn Pro Leu Pro Glu Arg Pro Arg Glu Lys Glu  
260                    265                    270  
Glu Pro Val Val Arg Glu Thr Gly Glu Val Val Asp Cys His Leu Ser  
275                    280                    285  
Asp Met Leu Gln Gln Leu His Ser Val Asn Ala Ser Lys Pro Ser Glu  
290                    295                    300  
Arg Gly Leu Val Arg Gln Glu Glu Ala Glu Asp Pro Ala Cys Ile Pro  
305                    310                    320  
Ile Phe Trp Val Ser Lys Trp Val Asp Tyr Ser Asp Lys Tyr Gly Leu  
325                    330                    335  
Gly Tyr Gln Leu Cys Asp Asn Ser Val Gly Val Leu Phe Asn Asp Ser  
340                    345                    350  
Thr Arg Leu Ile Leu Tyr Asn Asp Gly Asp Ser Leu Gln Tyr Ile Glu  
355                    360                    365  
Arg Asp Gly Thr Glu Ser Tyr Leu Thr Val Ser Ser His Pro Asn Ser  
370                    375                    380  
Leu Met Lys Lys Ile Thr Leu Leu Lys Tyr Phe Arg Asn Tyr Met Ser  
385                    390                    395                    400  
Glu His Leu Leu Lys Ala Gly Ala Asn Ile Thr Pro Arg Glu Gly Asp  
405                    410                    415  
Glu Leu Ala Arg Leu Pro Tyr Leu Arg Thr Trp Phe Arg Thr Arg Ser  
420                    425                    430  
Ala Ile Ile Leu His Leu Ser Asn Gly Ser Val Gln Ile Asn Phe Phe  
435                    440                    445  
Gln Asp His Thr Lys Leu Ile Leu Cys Pro Leu Met Ala Ala Val Thr

450                    455                    460  
Tyr Ile Asp Glu Lys Arg Asp Phe Arg Thr Tyr Arg Leu Ser Leu Leu  
465                    470                    475                    480  
Glu Glu Tyr Gly Cys Cys Lys Glu Leu Ala Ser Arg Leu Arg Tyr Ala  
485                    490                    495  
Arg Thr Met Val Asp Lys Leu Leu Ser Ser Arg Ser Ala Ser Asn Arg  
500                    505                    510  
  
Leu Lys Ala Ser  
515  
  
<210> 124  
<211> 171  
<212> PRT  
<213> Homo sapiens  
  
<220>  
<221> -  
<222> (1)...(171)  
<223> "XAA" can be any amino acid  
  
<400> 124  
  
Met Ala Leu Leu Pro Pro Phe Leu Ala Ser His Arg Leu Glu Val Ser  
1                    5                            10                    15  
  
Arg Asp Ser Gly Trp Leu Gly Gln Cys Trp Leu Gln Gly Val Trp Glu  
20                    25                            30  
  
Arg Xaa Pro His Ser Gly Leu Leu Tyr Pro Leu Gln His Pro Pro Ala  
35                    40                            45  
  
Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp Asp  
50                    55                            60  
  
Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe His  
65                    70                            75                    80  
  
Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu Lys  
85                    90                            95  
  
Phe Gly Ala Ser Ser Ser Gln Ala Gln Pro Arg Asp Ser Pro Met Thr  
100                    105                            110  
  
Ala Lys Gly Pro Phe Cys Pro Arg Pro Cys Pro Cys Ala Gly Pro Thr  
115                    120                            125  
  
Tyr Ser Pro Thr Tyr Trp Cys Pro Ala Pro Leu Gly Thr Gln Ser Pro  
130                    135                            140  
  
Pro Asp Arg Pro Val Glu Glu Val Glu Leu Ser Pro Gln Asn Tyr  
145                    150                            155                    160

Trp Pro Val Val Trp Thr Pro Gly Pro His Phe  
165 170

<210> 125

<211> 134

<212> PRT

<213> Homo sapiens

<400> 125

Met Ala Leu Leu Pro Pro Phe Leu Ala Ser His Arg Leu Glu Val Ser  
1 5 10 15

Arg Asp Ser Gly Trp Leu Gly Gln Cys Trp Leu Gln Gly Val Trp Glu  
20 25 30

Arg Gly Leu Thr Val Ala Phe Ser Ile Leu Cys Asn Thr Leu Gln Pro  
35 40 45

Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp Asp  
50 55 60

Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe His  
65 70 75 80

Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu Lys  
85 90 95

Phe Gly Ala Ser Ser Ser Gln Ala Gln Pro Arg Asp Ser Pro Met Thr  
100 105 110

Ala Lys Gly Pro Phe Cys Pro Arg Pro Cys Pro Cys Ala Gly Pro Thr  
115 120 125

Tyr Ser Pro Thr Tyr Trp  
130

<210> 126

<211> 233

<212> PRT

<213> Homo sapiens

<400> 126

Met Ala Leu Leu Pro Pro Phe Leu Ala Ser His Arg Leu Glu Val Ser  
1 5 10 15

Arg Asp Ser Gly Trp Leu Gly Gln Cys Trp Leu Gln Gly Val Trp Glu  
20 25 30

Arg Gly Leu Thr Val Ala Phe Ser Ile Leu Cys Asn Thr Leu Gln Pro  
35 40 45

Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp Asp  
50 55 60

Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe His

65	70	75	80
Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu Lys			
85	90	95	
Phe Gly Gly Pro Leu Ser Cys Gln Pro Pro Ala Leu Pro Cys Gly Arg			
100	105	110	
Pro Gln Asp Glu Leu Gly Cys Ser Pro Glu Ser Arg Gly Cys Gly Pro			
115	120	125	
Gly Ala Ala Arg Thr Arg Thr Arg Gly Glu Asp Gly Ala Ala Thr Gly			
130	135	140	
Val Arg Asp Pro Ser Pro Ala Pro Trp Pro Thr His Gly Gly His Cys			
145	150	155	160
Gln Pro Ala Pro Gln Cys Arg Arg Ala Arg Gly Phe His Ala Ser Leu			
165	170	175	
Pro His Pro Ala Gly Trp Gln Tyr Phe Ser Gln Ser Asp Leu Ala Gly			
180	185	190	
Arg Pro Gly Glu Glu Gly Glu Tyr Glu Ala Ala Gln Gly Cys Ala Arg			
195	200	205	
Gln Arg Leu Leu Leu Arg Pro His Trp Ala Ala Arg Gly Leu Pro Asp			
210	215	220	
Pro Ser Leu Thr Asp Lys Cys Ala Ile			
225	230		
<210> 127			
<211> 243			
<212> PRT			
<213> Homo sapiens			
<400> 127			
Met Ala Ala Glu Leu Asn Lys Asn Lys Lys Ala Arg Ala Ala Glu Ala			
1	5	10	15
Ala Arg Ala Ala Glu Ala Ala Lys Ala Ala Glu Ala Thr Lys Ala Ala			
20	25	30	
Glu Ala Ala Ala Lys Ala Ala Lys Ala Ser Asn Thr Ser Thr Pro Thr			
35	40	45	
Lys Gly Asn Thr Glu Thr Ser Ala Ser Ala Ser Gln Thr Asn His Val			
50	55	60	
Lys Asp Val Lys Lys Ile Lys Ile Glu His Ala Pro Ser Pro Ser Ser			
65	70	75	80
Gly Gly Thr Leu Lys Asn Asp Lys Ala Lys Thr Lys Pro Pro Leu Gln			
85	90	95	

Val Thr Lys Val Glu Asn Asn Leu Ile Val Asp Lys Ala Thr Lys Lys  
100 105 110

Ala Val Ile Val Gly Lys Glu Ser Lys Ser Ala Ala Thr Lys Glu Glu  
115 120 125

Ser Val Ser Leu Lys Glu Lys Thr Lys Pro Leu Thr Pro Ser Ile Gly  
130 135 140

Ala Lys Glu Lys Glu Gln His Val Ala Leu Val Thr Ser Thr Leu Pro  
145 150 155 160

Pro Leu Pro Leu Pro Pro Met Leu Pro Glu Asp Lys Glu Ala Asp Ser  
165 170 175

Leu Arg Gly Asn Ile Ser Val Lys Ala Val Lys Lys Glu Val Glu Lys  
180 185 190

Lys Leu Arg Cys Leu Leu Ala Asp Leu Pro Leu Pro Pro Glu Leu Pro  
195 200 205

Gly Gly Asp Asp Leu Ser Lys Ser Pro Glu Glu Lys Lys Thr Ala Thr  
210 215 220

Gln Leu His Ser Lys Arg Arg Pro Lys Tyr Val Leu Ala Phe Tyr Leu  
225 230 235 240

Leu Leu Asn

<210> 128  
<211> 330  
<212> PRT  
<213> Homo sapiens

<400> 128

Met Ser Ala Lys Val Arg Leu Lys Lys Leu Glu Gln Leu Leu Asp  
1 5 10 15

Gly Pro Trp Arg Asn Glu Ser Ala Leu Ser Val Glu Thr Leu Leu Asp  
20 25 30

Val Leu Val Cys Leu Tyr Thr Glu Cys Ser His Ser Ala Leu Arg Arg  
35 40 45

Asp Lys Tyr Val Ala Glu Phe Leu Glu Trp Ala Lys Pro Phe Thr Gln  
50 55 60

Leu Val Lys Glu Met Gln Leu His Arg Glu Asp Phe Glu Ile Ile Lys  
65 70 75 80

Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Met Lys  
85 90 95

Asn Thr Glu Arg Ile Tyr Ala Met Lys Ile Leu Asn Lys Trp Glu Met  
100 105 110

Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu  
115 120 125

Val Asn Gly Asp Cys Gln Trp Ile Thr Ala Leu His Tyr Ala Phe Gln  
130 135 140

Asp Glu Asn His Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp  
145 150 155 160

Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Lys Leu Pro Glu Asp Met  
165 170 175

Ala Arg Phe Tyr Ile Gly Glu Met Val Leu Ala Ile Asp Ser Ile His  
180 185 190

Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Val Leu Leu  
195 200 205

Asp Val Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys  
210 215 220

Met Asn Asp Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr Pro  
225 230 235 240

Asp Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Met Gly  
245 250 255

Lys Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr  
260 265 270

Glu Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu  
275 280 285

Thr Tyr Gly Lys Ile Met Asn His Glu Glu Arg Phe Gln Phe Pro Ser  
290 295 300

His Val Thr Asp Val Ser Glu Glu Ala Lys Asp Leu Ile Gln Arg Leu  
305 310 315 320

Ser Cys Ile Gln Arg Thr Pro Tyr Leu Gln  
325 330

<210> 129  
<211> 246  
<212> PRT  
<213> Homo sapiens

<400> 129

Met Ser Ala Lys Val Arg Leu Lys Lys Leu Glu Gln Leu Leu Asp  
1 5 10 15

Gly Pro Trp Arg Asn Glu Ser Ala Leu Ser Val Glu Thr Leu Leu Asp  
20 25 30

Val Leu Val Cys Leu Tyr Thr Glu Cys Ser His Ser Ala Leu Arg Arg

35

40

45

Asp Lys Tyr Val Ala Glu Phe Leu Glu Trp Ala Lys Pro Phe Thr Gln  
50 55 60

Leu Val Lys Glu Met Gln Leu His Arg Glu Asp Phe Glu Ile Ile Lys  
65 70 75 80

Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Met Lys  
85 90 95

Asn Thr Glu Arg Ile Tyr Ala Met Lys Ile Leu Asn Lys Trp Glu Met  
100 105 110

Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu  
115 120 125

Val Asn Gly Asp Cys Gln Trp Ile Thr Ala Leu His Tyr Ala Phe Gln  
130 135 140

Asp Glu Asn His Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp  
145 150 155 160

Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Lys Leu Pro Glu Asp Met  
165 170 175

Ala Arg Phe Tyr Ile Gly Glu Met Val Leu Ala Ile Asp Ser Ile His  
180 185 190

Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Val Leu Leu  
195 200 205

Asp Val Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys  
210 215 220

Met Asn Asp Asp Gly Thr Val Gly Ile Phe Val Gly Asp Phe Pro Phe  
225 230 235 240

Gly Phe Gly Phe Gly Ile  
245

<210> 130

<211> 378

<212> PRT

<213> Homo sapiens

<400> 130

Met Glu Leu Arg Val Gly Asn Arg Tyr Arg Leu Gly Arg Lys Ile Gly  
1 5 10 15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Val Gly Ile Pro Thr Ile Arg  
20 25 30

Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met Val Met Glu Leu Leu  
35 40 45

Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys Ser Arg Lys Phe Ser  
50 55 60

Leu Lys Thr Val Leu Leu Ala Asp Gln Met Ile Ser Arg Ile Glu  
65 70 75 80

Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp Val Lys Pro Asp Asn  
85 90 95

Phe Leu Met Gly Leu Gly Lys Gly Asn Leu Val Tyr Ile Ile Asp  
100 105 110

Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg Thr His Gln His Ile  
115 120 125

Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr Ala Arg Tyr Ala Ser  
130 135 140

Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg Arg Asp Asp Leu Glu  
145 150 155 160

Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu Gly Ser Leu Pro Trp  
165 170 175

Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys Tyr Glu Arg Ile Ser  
180 185 190

Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu Cys Lys Gly Tyr Pro  
195 200 205

Ser Glu Phe Ala Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp  
210 215 220

Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe  
225 230 235 240

His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu  
245 250 255

Lys Phe Gly Ala Ser Arg Ala Ala Asp Asp Ala Glu Arg Asp Ala Gly  
260 265 270

Asp Arg Glu Glu Arg Leu Arg His Ser Arg Asn Pro Ala Thr Arg Gly  
275 280 285

Leu Pro Ser Thr Ala Ser Gly Arg Leu Arg Gly Arg Arg Lys Val Ala  
290 295 300

Pro Pro Thr Pro Leu Thr Pro Thr Ser His Thr Ala Asn Thr Ser Pro  
305 310 315 320

Arg Pro Val Ser Gly Met Glu Arg Glu Arg Lys Val Ser Met Arg Leu  
325 330 335

His Arg Gly Ala Pro Val Asn Ile Ser Ser Ser Asp Leu Thr Gly Arg  
340 345 350

Gln Asp Thr Ser Arg Met Ser Thr Ser Gln Ile Pro Gly Arg Val Ala  
355 360 365

Ser Ser Gly Leu Gln Ser Val Val His Arg  
370 375

<210> 131  
<211> 561  
<212> PRT  
<213> Homo sapiens

<400> 131

Met Val Glu Trp Trp Ser Ala Leu Thr Cys Pro Leu Gln Thr Phe Ala  
1 5 10 15

Ala Pro Ser Phe Asp Asp Lys Ile Leu Glu Val Val Ala Val Phe Gly  
20 25 30

Ser Met Gln Met Ala Val Ser Arg Val Ile Arg Leu Gln His His Arg  
35 40 45

Ile Ala Gln Cys Arg Thr Val Lys Ile Ser Ile Leu Gly Asp Glu Gly  
50 55 60

Val Pro Val Gln Val Asp Gly Glu Ala Trp Val Gln Pro Pro Gly Tyr  
65 70 75 80

Ile Arg Ile Val His Lys Asn Arg Ala Gln Thr Leu Thr Arg Asp Arg  
85 90 95

Ala Phe Glu Ser Thr Leu Lys Ser Trp Glu Asp Lys Gln Lys Cys Glu  
100 105 110

Leu Pro Arg Pro Pro Ser Cys Ser Leu His Pro Glu Met Leu Ser Glu  
115 120 125

Glu Glu Ala Thr Gln Met Asp Gln Phe Gly Gln Ala Ala Gly Val Leu  
130 135 140

Ile His Ser Ile Arg Glu Ile Ala Gln Ser His Arg Asp Met Glu Gln  
145 150 155 160

Glu Leu Ala His Ala Val Asn Ala Ser Ser Lys Ser Met Asp Arg Val  
165 170 175

Tyr Gly Lys Pro Arg Thr Thr Glu Gly Leu Asn Cys Ser Phe Val Leu  
180 185 190

Glu Met Val Asn Asn Phe Arg Ala Leu Arg Ser Glu Thr Glu Leu Leu  
195 200 205

Leu Ser Gly Lys Met Ala Leu Gln Leu Asp Pro Pro Gln Lys Glu Gln  
210 215 220

Leu Gly Ser Ala Leu Ala Glu Met Asp Arg Gln Leu Arg Arg Leu Ala  
225 230 235 240

Asp Thr Pro Trp Leu Cys Gln Ser Ala Glu Pro Gly Asp Glu Glu Ser  
245 250 255

Val Met Leu Asp Leu Ala Lys Arg Ser Arg Ser Gly Lys Phe Arg Leu  
260 265 270

Val Thr Lys Phe Lys Lys Glu Lys Asn Asn Lys Glu Ala His  
275 280 285

Ser Ser Leu Gly Ala Pro Val His Leu Trp Gly Thr Glu Glu Val Ala  
290 295 300

Ala Trp Leu Glu His Leu Ser Leu Cys Glu Tyr Lys Asp Ile Phe Thr  
305 310 315 320

Arg His Asp Ile Arg Gly Ser Glu Leu Leu His Leu Glu Arg Arg Asp  
325 330 335

Leu Lys Asp Leu Gly Val Thr Lys Val Gly His Met Lys Arg Ile Leu  
340 345 350

Cys Gly Ile Lys Glu Leu Ser Arg Ser Ala Pro Ala Val Glu Ala Gln  
355 360 365

Pro Leu Ser Ser Gln Pro Val Ala Ser Thr Ser Pro Pro Pro Arg Pro  
370 375 380

Ser Leu Arg Pro Leu Ser Leu Trp Pro Leu Arg Leu Leu Pro Leu Arg  
385 390 395 400

Pro Trp Ala Asp Ala Ala Arg Pro Leu Leu Met Val Leu Leu Pro  
405 410 415

Leu Ser Ala Thr Glu Ser Leu Arg Asp Thr Val His Gln Ser Ser Gly  
420 425 430

Val Ser Asn Ile Thr Thr Gln Leu Pro Leu Lys Gln His Phe Leu Gln  
435 440 445

Leu Arg Val Thr Trp Gly Thr Cys Val Thr Ala Thr Gln Leu Ser Pro  
450 455 460

Ala Cys Ala Val Gly Gln Gly Ile Gln Arg Arg Leu Ala Ser Trp Ala  
465 470 475 480

Leu Leu Ala Trp Pro Arg Ala Trp Ile Val Pro Gly Ala Pro Leu Arg  
485 490 495

Val Ser Phe Cys Gly Arg Thr Val Trp Leu Arg Leu Leu Ala Pro Ser  
500 505 510

Gln Phe Ser Glu Thr Trp Leu Gly Pro Ser Thr Ala Ala Cys Lys Gly  
515 520 525

Pro Cys Leu Leu Met Gln Leu Leu Leu Asn Lys Asn Arg Ala Leu Ser  
530 535 540

Trp Phe Glu Ser Ser Met Asp Val Ser Ser Leu Val Asp Cys Asn Leu  
545 550 555 560

Thr

<210> 132  
<211> 213  
<212> PRT  
<213> Homo sapiens

<400> 132

Met Ser Asp Val Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp  
20 25 30

Gly Thr Phe Ile Gly Tyr Lys Glu Arg Pro Gln Asp Val Asp Gln Arg  
35 40 45

Glu Ala Pro Leu Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys  
50 55 60

Thr Glu Arg Pro Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp  
65 70 75 80

Thr Thr Val Ile Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg  
85 90 95

Glu Glu Trp Thr Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys  
100 105 110

Gln Glu Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn  
115 120 125

Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg  
130 135 140

Val Ala Leu Gly Gly Arg Ala Gly Pro Ala His Val Ser Pro His Ser  
145 150 155 160

Val Ser Gln Pro Pro Trp Ala Val Cys His Gln Leu Ser Val Ile Ser  
165 170 175

Leu Gly Pro Trp Ala Ser Val Gln Pro Gly Gly Thr Arg Cys Asn Leu  
180 185 190

Thr Met Val Cys Trp Pro Ala Pro Ser Pro Gly Gly Arg His Thr  
195 200 205

Ala Ala Pro Gln His  
210

<210> 133

<211> 425  
<212> PRT  
<213> Homo sapiens

<400> 133

Met Ile Val His Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser  
1 5 10 15

Lys Glu Gly Thr Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr  
20 25 30

Leu Gln Lys His Lys Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro  
35 40 45

Arg Leu Leu Gln Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val  
50 55 60

Val Gly Phe Ser Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp  
65 70 75 80

Pro Thr Arg Lys Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg  
85 90 95

Pro Gln Ser Asp Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn  
100 105 110

Ser Glu Ile Leu Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly  
115 120 125

Thr Glu Ser Gly Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val  
130 135 140

Tyr Pro Leu Ile Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu  
145 150 155 160

Gly Leu Asn Val Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg  
165 170 175

Val Tyr Tyr Leu Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro  
180 185 190

Glu Val Glu Lys Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly  
195 200 205

Cys Val His Tyr Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val  
210 215 220

Ile Ala Leu Lys Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro  
225 230 235 240

Tyr His Lys Phe Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys  
245 250 255

Pro Leu Leu Val Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val  
260 265 270

Ile Tyr Gly Ser Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly  
275 280 285

Ser Val Tyr Asp Ile Tyr Leu Pro Thr His Ile Gln Cys Ser Ile Lys  
290 295 300

Pro His Ala Ile Ile Leu Pro Asn Thr Asp Gly Met Glu Leu Leu  
305 310 315 320

Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile  
325 330 335

Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro Thr Ser Val Ala  
340 345 350

Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu Lys Ala Ile Glu  
355 360 365

Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val Phe Met His Lys  
370 375 380

Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn Asp Lys Val Phe  
385 390 395 400

Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val Tyr Phe Met Thr  
405 410 415

Leu Gly Arg Thr Ser Leu Leu Ser Trp  
420 425

<210> 134  
<211> 515  
<212> PRT  
<213> Homo sapiens

<400> 134

Met Ala Ser Arg Thr Pro Arg Asn Cys Ala Val Leu Lys Gly Glu Val  
1 5 10 15

Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp Val Arg  
20 25 30

Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser Glu Glu Ser Gly  
35 40 45

Thr Thr Asp Glu Glu Asp Asp Val Glu Gln Glu Gly Ala Asp Glu  
50 55 60

Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu Asn Leu  
65 70 75 80

Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His Asp Asp  
85 90 95

Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr Leu Ile  
100 105 110

Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His Lys Ser  
115 120 125

Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln Ile Ser  
130 135 140

Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser Cys Asp  
145 150 155 160

Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys Gly Ser  
165 170 175

Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp Thr Pro  
180 185 190

Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu Cys Ala  
195 200 205

Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly Leu Met  
210 215 220

Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile Asn Arg  
225 230 235 240

Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val Leu Val  
245 250 255

Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu Ser Trp  
260 265 270

Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys Lys Gln  
275 280 285

Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr Lys Val  
290 295 300

Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys Ser Ser  
305 310 315 320

Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe Met Ala  
325 330 335

Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val Asp Leu  
340 345 350

Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser Cys Ala  
355 360 365

Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp Ile Tyr  
370 375 380

Leu Pro Thr His Ile Gln Cys Ser Ile Lys Pro His Ala Ile Ile Ile  
385 390 395 400

Leu Pro Asn Thr Asp Gly Met Glu Leu Leu Val Cys Tyr Glu Asp Glu  
405 410 415

Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile Thr Lys Asp Val Val Leu  
420 425 430

Gln Trp Gly Glu Met Pro Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln  
435 440 445

Thr Met Gly Trp Gly Glu Lys Ala Ile Glu Ile Arg Ser Val Glu Thr  
450 455 460

Gly His Leu Asp Gly Val Phe Met His Lys Arg Ala Gln Arg Leu Lys  
465 470 475 480

Phe Leu Cys Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg Ser  
485 490 495

Gly Gly Ser Ser Gln Val Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu  
500 505 510

Leu Ser Trp  
515

<210> 135  
<211> 468  
<212> PRT  
<213> Homo sapiens

<400> 135

Met Ser Ala Arg Val Gln Leu Thr Lys Ser Val Pro Ala Ile Met Arg  
1 5 10 15

Ala Met Ala Leu Arg Phe Ala Phe Thr Ser Cys Gln Ile Ser Tyr Ser  
20 25 30

Lys Ala Ile Pro Pro Pro Leu Pro Pro Pro Pro His Pro Pro  
35 40 45

Ala Ser Arg His Pro Pro Cys Pro His Arg His Pro Arg Asp Lys Leu  
50 55 60

Thr Ala Asn Glu Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His Lys  
65 70 75 80

Ser Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln Ile  
85 90 95

Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser Cys  
100 105 110

Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys Gly  
115 120 125

Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp Thr  
130 135 140

Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu Cys

145                    150                    155                    160  
Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly Leu  
165                    170                    175  
Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile Asn  
180                    185                    190  
Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val Leu  
195                    200                    205  
Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu Ser  
210                    215                    220  
Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys Lys  
225                    230                    235                    240  
Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr Lys  
245                    250                    255  
Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys Ser  
260                    265                    270  
Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe Met  
275                    280                    285  
Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val Asp  
290                    295                    300  
Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser Cys  
305                    310                    315                    320  
Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp Ile  
325                    330                    335  
Tyr Leu Pro Thr His Ile Gln Cys Ser Ile Lys Pro His Ala Ile Ile  
340                    345                    350  
Ile Leu Pro Asn Thr Asp Gly Met Glu Leu Leu Val Cys Tyr Glu Asp  
355                    360                    365  
Glu Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile Thr Lys Asp Val Val  
370                    375                    380  
Leu Gln Trp Gly Glu Met Pro Thr Ser Val Ala Tyr Ile Arg Ser Asn  
385                    390                    395                    400  
Gln Thr Met Gly Trp Gly Glu Lys Ala Ile Glu Ile Arg Ser Val Glu  
405                    410                    415  
Thr Gly His Leu Asp Gly Val Phe Met His Lys Arg Ala Gln Arg Leu  
420                    425                    430  
Lys Phe Leu Cys Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg  
435                    440                    445  
Ser Gly Gly Ser Ser Gln Val Tyr Phe Met Thr Leu Gly Arg Thr Ser

450

455

460

Leu Leu Ser Trp  
465

<210> 136  
<211> 666  
<212> PRT  
<213> Homo sapiens

<220>  
<221> -  
<222> (1) .. (666)  
<223> "XAA" can be any amino acid

<400> 136

Met Asp Cys Gln Leu Ser Ile Leu Leu Leu Ser Cys Ser Val Leu  
1 5 10 15

Asp Ser Phe Gly Glu Leu Ile Pro Gln Pro Ser Asn Glu Val Asn Leu  
20 25 30

Leu Asp Ser Lys Thr Ile Gln Gly Glu Leu Gly Trp Ile Ser Tyr Pro  
35 40 45

Ser His Gly Trp Glu Glu Ile Ser Gly Val Asp Glu His Tyr Thr Pro  
50 55 60

Ile Arg Thr Tyr Gln Val Cys Asn Val Met Asp His Ser Gln Asn Asn  
65 70 75 80

Trp Leu Arg Thr Asn Trp Val Pro Arg Asn Ser Ala Gln Lys Ile Tyr  
85 90 95

Val Glu Leu Lys Phe Thr Leu Arg Asp Cys Asn Ser Ile Pro Leu Val  
100 105 110

Leu Gly Thr Cys Lys Glu Thr Phe Asn Leu Tyr Tyr Met Glu Ser Asp  
115 120 125

Asp Asp His Gly Val Lys Phe Arg Glu His Gln Phe Thr Lys Ile Asp  
130 135 140

Thr Ile Ala Ala Asp Glu Ser Phe Thr Gln Met Asp Leu Gly Asp Arg  
145 150 155 160

Ile Leu Lys Leu Asn Thr Glu Ile Arg Glu Val Gly Pro Val Asn Lys  
165 170 175

Lys Gly Phe Tyr Leu Ala Phe Gln Asp Val Gly Ala Cys Val Ala Leu  
180 185 190

Val Ser Val Arg Val Tyr Phe Lys Lys Cys Pro Phe Thr Val Lys Asn  
195 200 205

Leu Ala Met Phe Pro Asp Thr Val Pro Met Asp Ser Gln Ser Leu Val  
210 215 220

Glu Val Arg Gly Ser Cys Val Asn Asn Ser Lys Glu Glu Asp Pro Pro  
225 230 235 240

Arg Met Tyr Cys Ser Thr Glu Gly Glu Trp Leu Val Pro Ile Gly Lys  
245 250 255

Cys Ser Cys Asn Ala Gly Tyr Glu Glu Arg Gly Phe Met Cys Gln Ala  
260 265 270

Cys Arg Pro Gly Phe Tyr Lys Ala Leu Asp Gly Asn Met Lys Cys Ala  
275 280 285

Lys Cys Pro Pro His Ser Ser Thr Gln Glu Asp Gly Ser Met Asn Cys  
290 295 300

Arg Cys Glu Asn Asn Tyr Phe Arg Ala Asp Lys Asp Pro Pro Ser Met  
305 310 315 320

Ala Cys Thr Arg Pro Pro Ser Ser Pro Arg Asn Val Ile Ser Asn Ile  
325 330 335

Asn Glu Thr Ser Val Ile Leu Asp Trp Ser Trp Pro Leu Asp Thr Gly  
340 345 350

Gly Arg Lys Asp Val Thr Phe Asn Ile Ile Cys Lys Lys Cys Gly Trp  
355 360 365

Asn Ile Lys Gln Cys Glu Pro Cys Ser Pro Asn Val Arg Phe Leu Pro  
370 375 380

Arg Gln Phe Gly Leu Thr Asn Thr Thr Val Thr Val Thr Asp Leu Leu  
385 390 395 400

Ala His Thr Asn Tyr Thr Phe Glu Ile Asp Ala Val Asn Gly Val Ser  
405 410 415

Glu Leu Ser Ser Pro Pro Arg Gln Phe Ala Ala Val Ser Ile Thr Thr  
420 425 430

Asn Gln Ala Ala Pro Ser Pro Val Leu Thr Ile Lys Lys Asp Arg Thr  
435 440 445

Ser Arg Asn Ser Ile Ser Leu Ser Trp Gln Glu Pro Glu His Pro Asn  
450 455 460

Gly Ile Ile Leu Asp Tyr Glu Val Lys Tyr Tyr Glu Lys Gln Glu Gln  
465 470 475 480

Glu Thr Ser Tyr Thr Ile Leu Arg Ala Arg Gly Thr Asn Val Thr Ile  
485 490 495

Ser Ser Leu Lys Pro Asp Thr Ile Tyr Val Phe Gln Ile Arg Ala Arg  
500 505 510

Thr Ala Ala Gly Tyr Gly Thr Asn Ser Arg Lys Phe Glu Phe Thr  
515 520 525

Ser Pro Asp Ser Phe Ser Ile Ser Gly Glu Ser Ser Gln Val Val Met  
530 535 540

Ile Ala Ile Ser Ala Ala Val Ala Ile Ile Leu Leu Thr Val Val Ile  
545 550 555 560

Tyr Val Leu Ile Gly Arg Phe Cys Gly Tyr Lys Ser Lys His Gly Ala  
565 570 575

Asp Glu Lys Arg Leu His Phe Gly Asn Gly His Leu Lys Leu Pro Gly  
580 585 590

Leu Arg Thr Tyr Val Asp Pro His Thr Tyr Glu Asp Pro Thr Gln Ala  
595 600 605

Val His Glu Phe Ala Lys Glu Leu Asp Ala Thr Asn Ile Ser Ile Asp  
610 615 620

Lys Val Val Gly Ala Val Leu Thr Ser Glu Gln Leu His Asp Ala Glu  
625 630 635 640

Xaa Phe Ser Leu Ala Gly Phe Asn Val Ser Ser Gln Gly Val His Phe  
645 650 655

Ser Pro Ala Arg Ser Leu Pro Val Ala Asn  
660 665

<210> 137  
<211> 458  
<212> PRT  
<213> Homo sapiens

<400> 137

Met Lys Tyr Thr Phe Trp Gly Trp Val Ala Val Val Lys Leu Lys Asn  
1 5 10 15

Ala Asp Lys Val Phe Ala Met Lys Ile Leu Asn Lys Trp Glu Met Leu  
20 25 30

Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu Val  
35 40 45

Asn Gly Asp Asn Lys Trp Ile Thr Thr Leu His Tyr Ala Phe Gln Asp  
50 55 60

Asp Asn Asn Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp Leu  
65 70 75 80

Leu Thr Leu Leu Ser Lys Phe Glu Asp Arg Leu Pro Glu Asp Met Ala  
85 90 95

Arg Phe Tyr Leu Ala Glu Met Val Ile Ala Ile Asp Ser Val His Gln  
100 105 110

Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Ile Leu Met Asp  
115 120 125

Met Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys Leu  
130 135 140

Met Glu Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr Pro Asp  
145 150 155 160

Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Lys Gly Arg  
165 170 175

Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr Glu  
180 185 190

Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu Thr  
195 200 205

Tyr Gly Lys Ile Met Asn His Lys Glu Arg Phe Gln Phe Pro Ala Gln  
210 215 220

Val Thr Asp Val Ser Glu Asn Ala Lys Asp Leu Ile Arg Arg Leu Ile  
225 230 235 240

Cys Ser Arg Glu His Arg Leu Gly Gln Asn Gly Ile Glu Asp Phe Lys  
245 250 255

Lys His Pro Phe Phe Ser Gly Ile Asp Trp Asp Asn Ile Arg Asn Cys  
260 265 270

Glu Ala Pro Tyr Ile Pro Glu Val Ser Ser Pro Thr Asp Thr Ser Asn  
275 280 285

Phe Asp Val Asp Asp Cys Leu Lys Asn Ser Glu Thr Met Pro Pro  
290 295 300

Pro Thr His Thr Ala Phe Ser Gly His His Leu Pro Phe Val Gly Phe  
305 310 315 320

Thr Tyr Thr Ser Ser Cys Val Leu Ser Asp Arg Ser Cys Leu Arg Val  
325 330 335

Thr Ala Gly Pro Thr Ser Leu Asp Leu Asp Val Asn Val Gln Arg Thr  
340 345 350

Leu Asp Asn Asn Leu Ala Thr Glu Ala Tyr Glu Arg Arg Ile Lys Arg  
355 360 365

Leu Glu Gln Glu Lys Leu Glu Leu Ser Arg Lys Leu Gln Glu Ser Thr  
370 375 380

Gln Thr Val Gln Ala Leu Gln Tyr Ser Thr Val Asp Gly Pro Leu Thr  
385 390 395 400

Ala Ser Lys Asp Leu Glu Ile Lys Asn Leu Lys Glu Glu Ile Glu Lys  
405 410 415

Leu Arg Lys Gln Val Thr Glu Ser Ser His Leu Glu Gln Gln Leu Glu  
420 425 430

Glu Ala Asn Ala Val Arg Gln Glu Leu Asp Asp Ala Phe Arg Gln Ile  
435 440 445

Lys Ala Tyr Glu Lys Gln Ile Lys Thr Leu  
450 455

<210> 138  
<211> 262  
<212> PRT  
<213> Homo sapiens

<400> 138

Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu  
1 5 10 15

Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr  
20 25 30

Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys  
35 40 45

Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys  
50 55 60

Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu  
65 70 75 80

Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys  
85 90 95

Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln  
100 105 110

Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val  
115 120 125

Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro  
130 135 140

Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Ser Pro Ser Arg Arg  
145 150 155 160

Gly Gly Arg His Ala Ser Val Pro Thr Thr Pro Gln Asp Leu Arg Ser  
165 170 175

Ala Leu Gln Gly Arg Ala Gly Gly Gln Gln Gly Pro Gly Ala Ala Leu  
180 185 190

Pro Pro Arg Pro Pro Gly Ser Ala Arg Gly Leu Leu Thr Ser Gln Pro  
195 200 205

Arg Ala Glu Pro Ser Arg Ala Gly Val Gly Gly Arg Arg Pro Pro

210                    215                    220  
Cys Thr Leu Cys Gly Asp Tyr Trp Pro Arg Pro Trp Pro Arg Ala Pro  
225                    230                    235                    240  
Gln Gly Ala Gln Arg Arg Pro Ala Ala Pro Pro Gln Thr Ser Trp Arg  
245                    250                    255  
Val Trp Arg Pro Gly Ser  
260  
  
<210> 139  
<211> 203  
<212> PRT  
<213> Homo sapiens  
  
<400> 139  
  
Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu  
1                    5                        10                    15  
  
Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr  
20                    25                        30  
  
Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys  
35                    40                        45  
  
Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys  
50                    55                        60  
  
Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu  
65                    70                        75                    80  
  
Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys  
85                    90                        95  
  
Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln  
100                   105                        110  
  
Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val  
115                   120                        125  
  
Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro  
130                   135                        140  
  
Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Cys Gln Leu  
145                   150                        155                    160  
  
Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp  
165                   170                        175  
  
Ile Lys Pro Gly Asn Leu Leu Thr Thr Gly Gly Thr Leu Lys Ile  
180                   185                        190  
  
Ser Asp Leu Gly Val Ala Glu Val Gly Thr Cys  
195                   200

<210> 140  
<211> 244  
<212> PRT  
<213> Homo sapiens

<400> 140

Met Asp Arg Glu Thr Thr Pro Leu Gly Leu Leu Trp Leu Ile Gln Val  
1 5 10 15

Ile Pro Ser Lys Leu Leu Pro Ser Leu Gln Val Lys Asp Phe Leu Ser  
20 25 30

Gln Leu Arg Ser Ser Asn Arg Arg Phe Ser Ile Pro Glu Ser Gly Gln  
35 40 45

Gly Gly Thr Glu Met Asp Gly Phe Arg Arg Thr Ile Glu Asn Gln His  
50 55 60

Ser Arg Asn Asp Val Met Val Ser Glu Trp Leu Asn Lys Leu Asn Leu  
65 70 75 80

Glu Glu Pro Pro Ser Ser Val Pro Lys Lys Cys Pro Ser Leu Thr Lys  
85 90 95

Arg Ser Arg Ala Gln Glu Glu Gln Val Pro Gln Ala Trp Thr Ala Gly  
100 105 110

Thr Ser Ser Asp Ser Met Ala Gln Pro Pro Gln Thr Pro Glu Thr Ser  
115 120 125

Thr Phe Arg Asn Gln Met Pro Ser Pro Thr Ser Thr Gly Thr Pro Ser  
130 135 140

Pro Gly Pro Arg Gly Asn Gln Gly Ala Glu Arg Gln Gly Met Asn Trp  
145 150 155 160

Ser Cys Arg Thr Pro Glu Pro Asn Pro Val Thr Gly Arg Pro Leu Val  
165 170 175

Asn Ile Tyr Asn Cys Ser Gly Val Gln Val Gly Asp Asn Asn Tyr Leu  
180 185 190

Thr Met Gln Gln Thr Thr Ala Leu Pro Thr Trp Gly Leu Ala Pro Ser  
195 200 205

Gly Lys Gly Arg Gly Leu Gln His Pro Pro Pro Val Gly Ser Gln Glu  
210 215 220

Gly Pro Lys Asp Pro Glu Ala Trp Ser Arg Pro Gln Gly Trp Tyr Asn  
225 230 235 240

His Ser Gly Lys

<210> 141  
<211> 222

<212> PRT  
<213> Homo sapiens

<400> 141

Met Val Lys Leu Tyr Leu Tyr Gln Lys Asn Val Lys Ile Ala Ile Phe  
1 5 10 15

Asp Leu Lys Ser Arg Gln Asn Phe Phe Val Tyr Phe Arg Glu Glu Gln  
20 25 30

Ala Arg Glu Leu Tyr Arg Arg Leu Arg Glu Lys Pro Arg Asp Gln Arg  
35 40 45

Thr Glu Gly Asp Ser Gln Glu Met Val Arg Leu Leu Leu Gln Ala Ile  
50 55 60

Gln Ser Phe Glu Lys Lys Val Arg Val Ile Tyr Thr Gln Leu Ser Lys  
65 70 75 80

Thr Val Val Cys Lys Gln Lys Ala Leu Glu Leu Leu Pro Lys Val Glu  
85 90 95

Glu Val Val Ser Leu Met Asn Glu Asp Glu Lys Thr Val Val Arg Leu  
100 105 110

Gln Glu Lys Arg Gln Lys Glu Leu Trp Asn Leu Leu Lys Ile Ala Cys  
115 120 125

Ser Lys Val Arg Gly Pro Val Ser Gly Ser Pro Asp Ser Met Asn Ala  
130 135 140

Ser Arg Leu Ser Gln Pro Gly Gln Leu Met Ser Gln Pro Ser Thr Ala  
145 150 155 160

Ser Asn Ser Leu Pro Glu Pro Ala Lys Lys Ser Glu Glu Leu Val Ala  
165 170 175

Glu Ala His Asn Leu Cys Thr Leu Leu Glu Asn Ala Ile Gln Asp Thr  
180 185 190

Val Arg Glu Gln Asp Gln Ser Phe Thr Ala Leu Asp Trp Ser Trp Leu  
195 200 205

Gln Thr Glu Glu Glu His Ser Cys Leu Glu Gln Ala Ser  
210 215 220

<210> 142

<211> 409

<212> PRT

<213> Homo sapiens

<400> 142

Met Arg Leu Thr Leu Leu Cys Cys Thr Trp Arg Glu Glu Arg Met Gly  
1 5 10 15

Glu Glu Gly Ser Glu Leu Pro Val Cys Ala Ser Cys Gly Gln Arg Ile  
20 25 30

Tyr Asp Gly Gln Tyr Leu Gln Ala Leu Asn Ala Asp Trp His Ala Asp  
35 40 45

Cys Phe Arg Cys Cys Asp Cys Ser Ala Ser Leu Ser His Gln Tyr Tyr  
50 55 60

Glu Lys Asp Gly Gln Leu Phe Cys Lys Asp Tyr Trp Ala Arg Tyr  
65 70 75 80

Gly Glu Ser Cys His Gly Cys Ser Glu Gln Ile Thr Lys Gly Leu Val  
85 90 95

Met Val Ala Gly Glu Leu Lys Tyr His Pro Glu Cys Phe Ile Cys Leu  
100 105 110

Thr Cys Gly Thr Phe Ile Gly Asp Gly Asp Thr Tyr Thr Leu Val Glu  
115 120 125

His Ser Lys Leu Tyr Cys Gly His Cys Tyr Tyr Gln Thr Val Val Thr  
130 135 140

Pro Val Ile Glu Gln Ile Leu Pro Asp Ser Pro Gly Ser His Leu Pro  
145 150 155 160

His Thr Val Thr Leu Val Ser Ile Pro Ala Ser Ser His Gly Lys Arg  
165 170 175

Gly Leu Ser Val Ser Ile Asp Pro Pro His Gly Pro Pro Gly Cys Gly  
180 185 190

Thr Glu His Ser His Thr Val Arg Val Gln Gly Val Asp Pro Gly Cys  
195 200 205

Met Ser Pro Asp Val Lys Asn Ser Ile His Val Gly Asp Arg Ile Leu  
210 215 220

Glu Ile Asn Gly Thr Pro Ile Arg Asn Val Pro Leu Asp Glu Ile Asp  
225 230 235 240

Leu Leu Ile Gln Glu Thr Ser Arg Leu Leu Gln Leu Thr Leu Glu His  
245 250 255

Asp Pro His Asp Thr Leu Gly His Gly Leu Gly Pro Glu Thr Ser Pro  
260 265 270

Leu Ser Ser Pro Ala Tyr Thr Pro Ser Gly Glu Ala Gly Ser Ser Ala  
275 280 285

Arg Gln Lys Pro Val Leu Arg Ser Cys Ser Ile Asp Arg Ser Pro Gly  
290 295 300

Ala Gly Ser Leu Gly Ser Pro Ala Ser Gln Arg Lys Asp Leu Gly Arg  
305 310 315 320

Ser Glu Ser Leu Arg Val Val Cys Arg Pro His Arg Ile Phe Arg Pro  
325 330 335

Ser Asp Leu Ile His Gly Glu Val Leu Gly Lys Gly Cys Phe Gly Gln  
340 345 350

Ala Ile Lys Val Gln Ser Met Pro Gly Ser Gln Leu Asp Ser Leu Gly  
355 360 365

Gly Thr Pro Pro Ser Ser Phe Leu Pro Ser Leu Trp Lys His Ser Gly  
370 375 380

Arg Gly Ile Trp Leu Ser Asp Ser Leu Ala Ser Ala Leu Ser Ser Leu  
385 390 395 400

Gly Leu Leu Glu Leu Ile Arg Asn Arg  
405

<210> 143

<211> 305

<212> PRT

<213> Homo sapiens

<400> 143

Met Arg Leu Thr Leu Leu Cys Cys Thr Trp Arg Glu Glu Arg Met Gly  
1 5 10 15

Glu Glu Gly Ser Glu Leu Pro Val Cys Ala Ser Cys Gly Gln Arg Ile  
20 25 30

Tyr Asp Gly Gln Tyr Leu Gln Ala Leu Asn Ala Asp Trp His Ala Asp  
35 40 45

Cys Phe Arg Cys Cys Asp Cys Ser Ala Ser Leu Ser His Gln Tyr Tyr  
50 55 60

Glu Lys Asp Gly Gln Leu Phe Cys Lys Asp Tyr Trp Ala Arg Tyr  
65 70 75 80

Gly Glu Ser Cys His Gly Cys Ser Glu Gln Ile Thr Lys Gly Leu Val  
85 90 95

Met Val Ala Gly Glu Leu Lys Tyr His Pro Glu Cys Phe Ile Cys Leu  
100 105 110

Thr Cys Gly Thr Phe Ile Gly Asp Gly Asp Thr Tyr Thr Leu Val Glu  
115 120 125

His Ser Lys Leu Tyr Cys Gly His Cys Tyr Tyr Gln Thr Val Val Thr  
130 135 140

Pro Val Ile Glu Gln Ile Leu Pro Asp Ser Pro Gly Ser His Leu Pro  
145 150 155 160

His Thr Val Thr Leu Val Ser Ile Pro Ala Ser Ser His Gly Lys Arg  
165 170 175

Gly Leu Ser Val Ser Ile Asp Pro Pro His Gly Pro Pro Gly Cys Gly  
180 185 190

Thr Glu His Ser His Thr Val Arg Val Gln Gly Val Asp Pro Gly Cys  
195 200 205

Met Ser Pro Asp Val Lys Asn Ser Ile His Val Gly Asp Arg Ile Leu  
210 215 220

Glu Ile Asn Gly Thr Pro Ile Arg Asn Val Pro Leu Asp Glu Ile Asp  
225 230 235 240

Leu Leu Ile Gln Glu Thr Ser Arg Leu Leu Gln Leu Thr Leu Glu His  
245 250 255

Asp Pro His Asp Thr Leu Gly His Gly Leu Gly Pro Glu Thr Ser Pro  
260 265 270

Leu Ser Ser Pro Ala Tyr Thr Pro Ser Gly Glu Ala Gly Ser Ser Ala  
275 280 285

Arg Gln Lys Pro Val Phe Ala Arg Thr Trp Val Ala Leu Ser Pro Ser  
290 295 300

Ala  
305

<210> 144  
<211> 780  
<212> PRT  
<213> Homo sapiens

<400> 144

Met Ala Ser Asp Ala Val Gln Ser Glu Pro Arg Ser Trp Ser Leu Leu  
1 5 10 15

Glu Gln Leu Gly Leu Ala Gly Ala Asp Leu Ala Ala Pro Gly Val Gln  
20 25 30

Gln Gln Leu Glu Leu Glu Arg Glu Arg Leu Arg Arg Glu Ile Arg Lys  
35 40 45

Glu Leu Lys Leu Lys Glu Gly Ala Glu Asn Leu Arg Arg Ala Thr Thr  
50 55 60

Asp Leu Gly Arg Ser Leu Gly Pro Val Glu Leu Leu Leu Arg Gly Ser  
65 70 75 80

Ser Arg Arg Leu Asp Leu Leu His Gln Gln Leu Gln Glu Leu His Ala  
85 90 95

His Val Val Leu Pro Asp Pro Ala Ala Thr His Asp Gly Pro Gln Ser  
100 105 110

Pro Gly Ala Gly Gly Pro Thr Cys Ser Ala Thr Asn Leu Ser Arg Val

115                    120                    125

Ala Gly Leu Glu Lys Gln Leu Ala Ile Glu Leu Lys Val Lys Gln Gly  
130                    135                    140

Ala Glu Asn Met Ile Gln Thr Tyr Ser Asn Gly Ser Thr Lys Asp Arg  
145                    150                    155                    160

Lys Leu Leu Leu Thr Ala Gln Gln Met Leu Gln Asp Ser Lys Thr Lys  
165                    170                    175

Ile Asp Ile Ile Arg Met Gln Leu Arg Arg Ala Leu Gln Ala Asp Gln  
180                    185                    190

Leu Glu Asn Gln Ala Ala Pro Asp Asp Thr Gln Gly Ser Pro Asp Leu  
195                    200                    205

Gly Ala Val Glu Leu Arg Ile Glu Glu Leu Arg His His Phe Arg Val  
210                    215                    220

Glu His Ala Val Ala Glu Gly Ala Lys Asn Val Leu Arg Leu Leu Ser  
225                    230                    235                    240

Ala Ala Lys Ala Pro Asp Arg Lys Ala Val Ser Glu Ala Gln Glu Lys  
245                    250                    255

Leu Thr Glu Ser Asn Gln Lys Leu Gly Leu Leu Arg Glu Ala Leu Glu  
260                    265                    270

Arg Arg Leu Gly Glu Leu Pro Ala Asp His Pro Lys Gly Arg Leu Leu  
275                    280                    285

Arg Glu Glu Leu Ala Ala Ser Ser Ala Ala Phe Ser Thr Arg Leu  
290                    295                    300

Ala Gly Pro Phe Pro Ala Thr His Tyr Ser Thr Leu Cys Lys Pro Ala  
305                    310                    315                    320

Pro Leu Thr Gly Thr Leu Glu Val Arg Val Val Gly Cys Arg Asp Leu  
325                    330                    335

Pro Glu Thr Ile Pro Trp Asn Pro Thr Pro Ser Met Gly Gly Pro Gly  
340                    345                    350

Thr Pro Asp Ser Arg Pro Pro Phe Leu Ser Arg Pro Ala Arg Gly Leu  
355                    360                    365

Tyr Ser Arg Ser Gly Ser Leu Ser Gly Arg Ser Ser Leu Lys Ala Glu  
370                    375                    380

Ala Glu Asn Thr Ser Glu Val Ser Thr Val Leu Lys Leu Asp Asn Thr  
385                    390                    395                    400

Val Val Gly Gln Thr Ser Trp Lys Pro Cys Gly Pro Asn Ala Trp Asp  
405                    410                    415

Gln Ser Phe Thr Leu Glu Leu Glu Arg Ala Arg Glu Leu Glu Leu Ala

420                    425                    430

Val Phe Trp Arg Asp Gln Arg Gly Leu Cys Ala Leu Lys Phe Leu Lys  
435                    440                    445

Leu Glu Asp Phe Leu Asp Asn Glu Arg His Glu Val Gln Leu Asp Met  
450                    455                    460

Glu Pro Gln Gly Cys Leu Val Ala Glu Val Thr Phe Arg Asn Pro Val  
465                    470                    475                    480

Ile Glu Arg Ile Pro Arg Leu Arg Arg Gln Lys Lys Ile Phe Ser Lys  
485                    490                    495

Gln Gln Gly Lys Ala Phe Gln Arg Ala Arg Gln Met Asn Ile Asp Val  
500                    505                    510

Ala Thr Trp Val Arg Leu Leu Arg Arg Leu Ile Pro Asn Ala Thr Gly  
515                    520                    525

Thr Gly Thr Phe Ser Pro Gly Ala Ser Pro Gly Ser Glu Ala Arg Thr  
530                    535                    540

Thr Gly Asp Ile Ser Val Glu Lys Leu Asn Leu Gly Thr Asp Ser Asp  
545                    550                    555                    560

Ser Ser Pro Gln Lys Ser Ser Arg Asp Pro Pro Ser Ser Pro Ser Ser  
565                    570                    575

Leu Ser Ser Pro Ile Gln Glu Ser Thr Ala Pro Glu Leu Pro Ser Glu  
580                    585                    590

Thr Gln Glu Thr Pro Gly Pro Ala Leu Cys Ser Pro Leu Arg Lys Ser  
595                    600                    605

Pro Leu Thr Leu Glu Asp Phe Lys Phe Leu Ala Val Leu Gly Arg Gly  
610                    615                    620

His Phe Gly Lys Val Leu Leu Ser Glu Phe Arg Pro Ser Gly Glu Leu  
625                    630                    635                    640

Phe Ala Ile Lys Ala Leu Lys Lys Gly Asp Ile Val Ala Arg Asp Glu  
645                    650                    655

Val Glu Ser Leu Met Cys Glu Lys Arg Ile Leu Ala Ala Val Thr Ser  
660                    665                    670

Ala Gly His Pro Phe Leu Val Asn Leu Phe Gly Cys Phe Gln Thr Pro  
675                    680                    685

Glu His Val Cys Phe Val Met Glu Tyr Ser Ala Gly Gly Asp Leu Met  
690                    695                    700

Leu His Ile His Ser Asp Val Phe Ser Glu Pro Arg Ala Ile Phe Tyr  
705                    710                    715                    720

Ser Ala Cys Arg Leu Pro Pro Pro Phe Val Pro Thr Leu Ser Gly Arg

725                    730                    735

Thr Asp Val Ser Asn Phe Asp Glu Glu Phe Thr Gly Glu Ala Pro Thr  
740                    745                    750

Leu Ser Pro Pro Arg Asp Ala Arg Pro Leu Thr Ala Ala Glu Gln Ala  
755                    760                    765

Ala Phe Leu Asp Phe Asp Phe Val Ala Gly Gly Cys  
770                    775                    780

<210> 145  
<211> 401  
<212> PRT  
<213> Homo sapiens

<400> 145

Met Ala Ser Asp Ala Val Gln Ser Glu Pro Arg Ser Trp Ser Leu Leu  
1                    5                        10                    15

Glu Gln Leu Gly Leu Ala Gly Ala Asp Leu Ala Ala Pro Gly Val Gln  
20                    25                        30

Gln Gln Leu Glu Leu Glu Arg Glu Arg Leu Arg Arg Glu Ile Arg Lys  
35                    40                        45

Glu Leu Lys Leu Lys Glu Gly Ala Glu Asn Leu Arg Arg Ala Thr Thr  
50                    55                        60

Asp Leu Gly Arg Ser Leu Gly Pro Val Glu Leu Leu Arg Gly Ser  
65                    70                        75                    80

Ser Arg Arg Leu Asp Leu Leu His Gln Gln Leu Gln Glu Leu His Ala  
85                    90                        95

His Val Val Leu Pro Asp Pro Ala Ala Thr His Asp Gly Pro Gln Ser  
100                    105                        110

Pro Gly Ala Gly Gly Pro Thr Cys Ser Ala Thr Asn Leu Ser Arg Val  
115                    120                        125

Ala Gly Leu Glu Lys Gln Leu Ala Ile Glu Leu Lys Val Lys Gln Gly  
130                    135                        140

Ala Glu Asn Met Ile Gln Thr Tyr Ser Asn Gly Ser Thr Lys Asp Arg  
145                    150                        155                    160

Lys Leu Leu Leu Thr Ala Gln Gln Met Leu Gln Asp Ser Lys Thr Lys  
165                    170                        175

Ile Asp Ile Ile Arg Met Gln Leu Arg Arg Ala Leu Gln Ala Asp Gln  
180                    185                        190

Leu Glu Asn Gln Ala Ala Pro Asp Asp Thr Gln Gly Ser Pro Asp Leu  
195                    200                        205

Gly Ala Val Glu Leu Arg Ile Glu Glu Leu Arg His His Phe Arg Val  
210 215 220

Glu His Ala Val Ala Glu Gly Ala Lys Asn Val Leu Arg Leu Leu Ser  
225 230 235 240

Ala Ala Lys Ala Pro Asp Arg Lys Ala Val Ser Glu Ala Gln Glu Lys  
245 250 255

Leu Thr Glu Ser Asn Gln Lys Leu Gly Leu Leu Arg Glu Ala Leu Glu  
260 265 270

Arg Arg Leu Gly Glu Leu Pro Ala Asp His Pro Lys Gly Arg Leu Leu  
275 280 285

Arg Glu Glu Leu Ala Ala Ala Ser Ser Ala Ala Phe Ser Thr Arg Leu  
290 295 300

Ala Gly Pro Phe Pro Ala Thr His Tyr Ser Thr Leu Cys Lys Pro Ala  
305 310 315 320

Pro Leu Thr Gly Thr Leu Glu Val Arg Val Val Gly Cys Arg Asp Leu  
325 330 335

Pro Glu Thr Ile Pro Trp Asn Pro Thr Pro Ser Met Gly Gly Pro Gly  
340 345 350

Thr Pro Asp Ser Arg Pro Pro Phe Leu Ser Arg Pro Ala Arg Gly Leu  
355 360 365

Tyr Ser Arg Ser Gly Ser Leu Ser Gly Arg Ser Ser Leu Lys Ala Glu  
370 375 380

Ala Glu Asn Thr Ser Glu Val Ser Thr Val Leu Lys Leu Asp Asn Thr  
385 390 395 400

His

<210> 146  
<211> 96  
<212> PRT  
<213> Homo sapiens

<400> 146

Met Gln Ser Phe Leu Val Glu Gly Arg Phe Lys His Glu Met Phe Glu  
1 5 10 15

Lys Val Phe Ala Glu Glu Arg Asn Gly Gly Gln Arg Leu Leu Cys Ala  
20 25 30

Thr Asp Val Pro Ile Arg Thr Val Ser Ser Ala Ala Ser Gln Gly Leu  
35 40 45

His Met Gln Asn Asp Asp Ala Cys Leu Gly Ala Ala Ser Pro Ser Ala  
50 55 60

Ala Ser Trp Ser Arg Arg Ser Ala Glu Ser Lys Val Ser Leu Cys Trp  
65 70 75 80

Lys Leu Lys Trp Lys Glu Asp Leu Val Trp Phe Tyr Ser Gln Ser His  
85 90 95

<210> 147  
<211> 333  
<212> PRT  
<213> Homo sapiens

<400> 147

Met His Arg Tyr Phe Glu Ser Pro Arg Arg Leu Leu Pro Val His Phe  
1 5 10 15

Cys Cys Cys Gln Trp Arg Gly Gly Val Asp Phe Glu Cys Leu Leu  
20 25 30

Gly Gly Val Trp Asp Arg Cys Arg Lys Val Leu Arg Ala Gln Glu Cys  
35 40 45

Glu Trp Pro Arg His Leu Pro Ser Ala Cys Leu Leu Ser Ser Ala Cys  
50 55 60

Arg Gly Gln Pro Glu Arg Arg Ala Ala Val Val Gly Ala Gln Asp Pro  
65 70 75 80

Thr Glu Pro Pro Arg Leu Ser Arg Ser Leu Ser Gly Ala Ser Pro Phe  
85 90 95

Leu Gly Glu Thr Lys Gln Glu Thr Leu Thr Asn Ile Ser Ala Val Asn  
100 105 110

Tyr Asp Phe Asp Glu Glu Tyr Phe Ser Asn Thr Ser Glu Leu Ala Lys  
115 120 125

Asp Phe Ile Arg Arg Leu Leu Val Lys Asp Pro Lys Arg Arg Met Thr  
130 135 140

Ile Ala Gln Ser Leu Glu His Ser Trp Ile Lys Ala Ile Arg Arg Arg  
145 150 155 160

Asn Val Arg Gly Glu Asp Ser Gly Arg Lys Pro Glu Arg Arg Arg Leu  
165 170 175

Lys Thr Thr Arg Leu Lys Glu Tyr Thr Ile Lys Ser His Ser Ser Leu  
180 185 190

Pro Pro Asn Asn Ser Tyr Ala Asp Phe Glu Arg Phe Ser Lys Val Leu  
195 200 205

Glu Glu Ala Ala Ala Glu Glu Gly Leu Arg Glu Leu Gln Arg Ser  
210 215 220

Arg Arg Leu Cys His Glu Asp Val Glu Ala Leu Ala Ile Tyr Glu

225                    230                    235                    240  
Glu Lys Glu Ala Trp Tyr Arg Glu Glu Ser Asp Ser Leu Gly Gln Asp  
245                    250                    255  
Leu Arg Arg Leu Arg Gln Glu Leu Leu Lys Thr Glu Ala Leu Lys Arg  
260                    265                    270  
Gln Ala Gln Glu Glu Ala Lys Gly Ala Leu Leu Gly Thr Ser Gly Leu  
275                    280                    285  
Lys Arg Arg Phe Ser Arg Leu Glu Asn Arg Tyr Glu Ala Leu Ala Lys  
290                    295                    300  
Gln Val Ala Ser Glu Met Arg Phe Val Gln Asp Leu Val Arg Ala Leu  
305                    310                    320  
Glu Gln Glu Lys Leu Gln Gly Val Glu Cys Gly Leu Arg  
325                    330  
<210> 148  
<211> 131  
<212> PRT  
<213> Homo sapiens  
<400> 148  
Met Leu Lys Glu Phe Leu Glu Ile Pro Phe Pro Thr Ser Pro Glu Cys  
1                    5                    10                    15  
Thr Leu Gln Pro Lys Ser Gln Gln Pro Thr Gly Lys Glu Ala Glu Glu  
20                    25                    30  
His Pro Thr Ser Ala Pro Leu Thr His Ser Leu Leu Pro Pro Thr Pro  
35                    40                    45  
Leu Trp Val Val Ser His Phe Ile Phe Asp Phe Arg Gly Glu Thr Ala  
50                    55                    60  
Leu His Lys Ala Ala Cys Gln Arg Asn Arg Ala Val Cys Gln Leu Leu  
65                    70                    75                    80  
Val Asp Ala Gly Ala Ser Leu Arg Lys Thr Asp Ser Lys Gly Lys Thr  
85                    90                    95  
Pro Gln Glu Arg Ala Gln Gln Ala Gly Asp Pro Asp Leu Ala Ala Tyr  
100                    105                    110  
Leu Glu Ser Arg Gln Asn Tyr Lys Val Ile Gly His Glu Asp Leu Glu  
115                    120                    125  
Thr Ala Val  
130  
<210> 149  
<211> 272  
<212> PRT

<213> Homo sapiens

<400> 149

Met Arg Gly Ala Ala Arg Leu Gly Arg Pro Gly Arg Ser Cys Leu Pro  
1 5 10 15

Gly Pro Ala Leu Arg Ala Pro Pro Arg Pro Pro Leu Leu Leu Leu  
20 25 30

Ala Leu Leu Pro Leu Leu Pro Ala Pro Gly Ala Ala Ala Pro Ala  
35 40 45

Pro Arg Pro Pro Glu Leu Gln Ser Ala Ser Ala Gly Pro Ser Val Ser  
50 55 60

Leu Tyr Leu Ser Glu Asp Glu Val Arg Arg Leu Ile Gly Leu Asp Ala  
65 70 75 80

Glu Leu Tyr Tyr Val Arg Asn Asp Leu Ile Ser His Tyr Ala Leu Ser  
85 90 95

Phe Ser Leu Leu Val Pro Ser Glu Thr Asn Phe Leu His Phe Thr Trp  
100 105 110

His Ala Lys Ser Lys Val Glu Tyr Lys Leu Gly Phe Gln Val Asp Asn  
115 120 125

Val Leu Ala Met Asp Met Pro Gln Val Asn Ile Ser Val Gln Gly Glu  
130 135 140

Val Pro Arg Thr Leu Ser Val Phe Arg Val Glu Leu Ser Cys Thr Gly  
145 150 155 160

Lys Val Asp Ser Glu Val Met Ile Leu Met Gln Leu Asn Leu Thr Val  
165 170 175

Asn Ser Ser Lys Asn Phe Thr Val Leu Asn Phe Lys Arg Arg Lys Met  
180 185 190

Cys Tyr Lys Lys Leu Glu Glu Val Lys Thr Ser Ala Leu Asp Lys Asn  
195 200 205

Thr Ser Arg Thr Ile Tyr Asp Pro Val His Ala Ala Pro Thr Thr Ser  
210 215 220

Thr Arg Val Phe Tyr Ile Ser Val Gly Val Cys Cys Ala Val Ile Phe  
225 230 235 240

Leu Val Ala Ile Ile Leu Ala Val Leu His Leu His Ser Met Lys Arg  
245 250 255

Ile Glu Leu Asp Asp Arg Tyr Cys Thr Tyr Phe Gly Lys Glu Lys Lys  
260 265 270

<210> 150

<211> 344

<212> PRT

<213> Homo sapiens

<400> 150

Met Pro Gln Val Asn Ile Ser Val Gln Gly Glu Val Pro Arg Thr Leu  
1 5 10 15

Ser Val Phe Arg Val Glu Leu Ser Cys Thr Gly Lys Val Asp Ser Glu  
20 25 30

Val Met Ile Leu Met Gln Leu Asn Leu Thr Val Asn Ser Ser Lys Asn  
35 40 45

Phe Thr Val Leu Asn Phe Lys Arg Arg Lys Met Cys Tyr Lys Lys Leu  
50 55 60

Glu Glu Val Lys Thr Ser Ala Leu Asp Lys Asn Thr Ser Arg Thr Ile  
65 70 75 80

Tyr Asp Pro Val His Ala Ala Pro Thr Thr Ser Thr Arg Val Phe Tyr  
85 90 95

Ile Ser Val Gly Val Cys Cys Ala Val Ile Phe Leu Val Ala Ile Ile  
100 105 110

Leu Ala Val Leu His Ser Met Lys Arg Ile Glu Leu Asp Asp  
115 120 125

Ser Ile Ser Ala Ser Ser Ser Gln Gly Leu Ser Gln Pro Ser Thr  
130 135 140

Gln Thr Thr Gln Tyr Leu Arg Ala Asp Thr Pro Asn Asn Ala Thr Pro  
145 150 155 160

Ile Thr Ser Ser Tyr Tyr Pro Thr Leu Arg Ile Glu Lys Asn Asp Leu  
165 170 175

Arg Ser Val Thr Leu Leu Glu Ala Lys Gly Lys Val Lys Asp Ile Ala  
180 185 190

Ile Ser Arg Glu Arg Ile Thr Leu Lys Asp Val Leu Gln Glu Gly Thr  
195 200 205

Phe Gly Arg Ile Phe His Gly Ile Leu Ile Asp Glu Lys Asp Pro Asn  
210 215 220

Lys Glu Lys Gln Ala Phe Val Lys Thr Val Lys Asp Gln Ala Ser Glu  
225 230 235 240

Ile Gln Val Thr Met Met Leu Thr Glu Ser Cys Lys Leu Arg Gly Leu  
245 250 255

His His Arg Asn Leu Leu Pro Ile Thr His Val Cys Ile Glu Glu Gly  
260 265 270

Glu Lys Pro Met Val Ile Leu Pro Tyr Met Asn Trp Gly Asn Leu Lys

275

280

285

Leu Phe Leu Arg Gln Cys Lys Leu Val Glu Ala Asn Asn Pro Gln Ala  
290 295 300

Ile Ser Gln Gln Asp Leu Val His Met Ala Ile Gln Ile Ala Cys Gly  
305 310 315 320

Met Ser Tyr Leu Ala Arg Arg Glu Val Ile His Lys Asp Leu Ala Ala  
325 330 335

Arg Asn Cys Val Gly Pro Leu Glu  
340

<210> 151

<211> 141

<212> PRT

<213> Homo sapiens

<400> 151

Met Glu Ala Ile Arg Thr Asp Asn Gln Asn Phe Ala Ser Gln Leu Arg  
1 5 10 15

Glu Ala Glu Ala Arg Asn Arg Asp Leu Glu Ala His Val Arg Gln Leu  
20 25 30

Gln Glu Arg Met Glu Leu Leu Gln Ala Glu Gly Ala Thr Ala Val Thr  
35 40 45

Gly Val Pro Ser Pro Arg Ala Thr Asp Pro Pro Ser His Leu Asp Gly  
50 55 60

Pro Pro Ala Val Ala Val Gly Gln Cys Pro Leu Val Gly Pro Gly Pro  
65 70 75 80

Met His Arg Arg His Leu Leu Leu Pro Ala Arg Val Pro Arg Pro Gly  
85 90 95

Leu Ser Glu Ala Leu Ser Leu Leu Leu Phe Ala Val Val Leu Ser Arg  
100 105 110

Ala Ala Ala Leu Gly Cys Ile Gly Leu Val Ala His Ala Gly Gln Leu  
115 120 125

Thr Ala Val Trp Arg Arg Pro Gly Ala Ala Arg Ala Pro  
130 135 140

<210> 152

<211> 106

<212> PRT

<213> Homo sapiens

<400> 152

Met Glu Leu Leu Gln Ala Glu Gly Ala Thr Ala Val Thr Gly Val Pro  
1 5 10 15

Ser Pro Arg Ala Thr Asp Pro Pro Ser His Leu Asp Gly Pro Pro Ala  
20 25 30

Val Ala Val Gly Gln Cys Pro Leu Val Gly Pro Gly Pro Met His Arg  
35 40 45

Arg His Leu Leu Leu Pro Ala Arg Val Pro Arg Pro Gly Leu Ser Glu  
50 55 60

Ala Leu Ser Leu Leu Leu Phe Ala Val Val Leu Ser Arg Ala Ala Ala  
65 70 75 80

Leu Gly Cys Ile Gly Leu Val Ala His Ala Gly Gln Leu Thr Ala Val  
85 90 95

Trp Arg Arg Pro Gly Ala Ala Arg Ala Pro  
100 105

<210> 153

<211> 50

<212> PRT

<213> Homo sapiens

<400> 153

Met Val Asn Leu Ser His Glu Asp Phe Glu Phe Ile Ser Gly Thr Arg  
1 5 10 15

Met Arg Lys Leu Ala Arg Glu Gly Gln Lys Pro Pro Glu Gly Phe Met  
20 25 30

Ala Pro Lys Ala Trp Thr Val Leu Thr Glu Tyr Tyr Lys Ser Leu Glu  
35 40 45

Lys Ala

50

<210> 154

<211> 238

<212> PRT

<213> Homo sapiens

<400> 154

Met Ala Arg Thr Thr Ser Gln Leu Tyr Asp Ala Val Pro Ile Gln Ser  
1 5 10 15

Ser Val Val Leu Cys Ser Cys Pro Ser Pro Ser Met Val Arg Thr Gln  
20 25 30

Thr Glu Ser Ser Thr Pro Pro Gly Ile Pro Gly Gly Ser Arg Gln Gly  
35 40 45

Pro Ala Met Asp Gly Thr Ala Ala Glu Pro Arg Pro Gly Ala Gly Ser  
50 55 60

Leu Gln His Ala Gln Pro Pro Pro Gln Pro Arg Lys Lys Arg Pro Glu  
65 70 75 80

Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly Ser Phe Ser Thr Val  
85 90 95

Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu Tyr Ala Ile Lys Ile  
100 105 110

Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys Val Pro Tyr Val Thr  
115 120 125

Arg Glu Arg Asp Val Met Ser Arg Leu Asp His Pro Phe Phe Val Lys  
130 135 140

Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu Tyr Phe Gly Leu Ser  
145 150 155 160

Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg Lys Ile Gly Ser  
165 170 175

Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu Ile Val Ser Ala  
180 185 190

Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg Asp Leu Lys Pro  
195 200 205

Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln Ile Thr Asp Phe  
210 215 220

Gly Thr Ala Lys Val Leu Ser Pro Glu Ser Lys Gln Val Cys  
225 230 235

<210> 155  
<211> 73  
<212> PRT  
<213> Homo sapiens

<400> 155

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp  
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro  
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Ser Ser Val Met Phe Arg Tyr  
50 55 60

Leu Gln Asn Leu Thr Leu Asn Gln Val  
65 70

<210> 156  
<211> 213

<212> PRT

<213> Homo sapiens

<400> 156

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp  
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro  
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Lys Cys Gln Leu Met Lys Thr  
50 55 60

Glu Arg Pro Lys Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr  
65 70 75 80

Thr Val Ile Glu Arg Thr Phe His Val Asp Thr Pro Glu Glu Arg Glu  
85 90 95

Glu Trp Thr Glu Ala Ile Gln Ala Val Ala Asp Arg Leu Gln Arg Gln  
100 105 110

Glu Glu Glu Arg Met Asn Cys Ser Pro Thr Ser Gln Ile Asp Asn Ile  
115 120 125

Gly Glu Glu Glu Met Asp Ala Ser Thr Thr His His Lys Arg Lys Thr  
130 135 140

Met Asn Asp Phe Asp Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly  
145 150 155 160

Lys Val Ile Leu Val Arg Glu Lys Ala Ser Gly Lys Tyr Tyr Ala Met  
165 170 175

Lys Ile Leu Lys Lys Glu Val Ile Ile Ala Lys Val Thr Asp Leu Leu  
180 185 190

Lys Leu Ile Thr Lys Phe Leu Phe Ala Val Cys Met Cys Leu Trp Ala  
195 200 205

His Glu Phe Thr Cys  
210

<210> 157

<211> 352

<212> PRT

<213> Homo sapiens

<400> 157

Met Gly Gly Lys Pro Ala Asn Arg Met Met Pro Tyr Pro Phe Pro Ser  
1 5 10 15

Gly Thr Trp Lys Val Lys Trp Val Ala Ser Arg Asn Ala Phe Lys Pro  
20 25 30

Arg Ile Gly Ile Leu Ile Lys Thr Leu Ile Tyr Ser Ser Gln Phe Pro  
35 40 45

Leu Gly Asn Leu Glu Lys Ile Ser Gln Leu Leu Ser Lys Ser Ala Gln  
50 55 60

Cys Pro Leu Arg Val His Tyr Leu Ser Ser Gln Tyr Gly Asp Glu Arg  
65 70 75 80

Cys Phe Met Phe Val Leu Ile Ser Pro Thr Lys Ser Val Ile Ile Thr  
85 90 95

Ile Leu Ser Leu Leu Phe Thr Leu Gln Leu Phe Phe His Leu Ser Arg  
100 105 110

Glu Arg Val Phe Ser Glu Asp Arg Thr Arg Phe Tyr Gly Ala Glu Ile  
115 120 125

Val Ser Ala Leu Asp Tyr Leu His Ser Gly Lys Ile Val Tyr Arg Asp  
130 135 140

Leu Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile  
145 150 155 160

Thr Asp Phe Gly Leu Cys Lys Glu Gly Ile Thr Asp Ala Ala Thr Met  
165 170 175

Lys Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu  
180 185 190

Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val  
195 200 205

Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His  
210 215 220

Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Asp Ile Lys Phe Pro Arg  
225 230 235 240

Thr Leu Ser Ser Asp Ala Lys Ser Leu Leu Ser Gly Leu Leu Ile Lys  
245 250 255

Asp Pro Asn Lys Arg Leu Gly Gly Pro Asp Asp Ala Lys Glu Ile  
260 265 270

Met Arg His Ser Phe Phe Ser Gly Val Asn Trp Gln Asp Val Tyr Asp  
275 280 285

Lys Lys Leu Val Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp  
290 295 300

Thr Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Thr Ile Thr Ile Thr  
305 310 315 320

Pro Pro Glu Lys Tyr Asp Glu Asp Gly Met Asp Cys Met Asp Asn Glu  
325 330 335

Arg Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Arg Glu  
340 345 350

<210> 158  
<211> 132  
<212> PRT  
<213> Homo sapiens

<400> 158

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys  
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Asn Ser Lys Lys  
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln  
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His Ser His  
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys  
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Phe Ala Lys Cys  
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile  
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Val Cys  
115 120 125

Met Thr Leu Glu  
130

<210> 159  
<211> 192  
<212> PRT  
<213> Homo sapiens

<400> 159

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys  
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Asn Ser Lys Lys  
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln  
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His Ser His

50

55

60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys  
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Gly Phe Ala Lys Cys  
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile  
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Ile Asp  
115 120 125

Lys Glu Ile Glu Leu His Arg Ile Leu His His Lys His Val Val Gln  
130 135 140

Phe Tyr His Tyr Phe Glu Asp Lys Glu Asn Ile Tyr Ile Leu Leu Glu  
145 150 155 160

Tyr Cys Ser Arg Arg Val Ser Val Asn Ser Tyr Leu Arg Thr Phe Ala  
165 170 175

Tyr Pro Glu Leu Thr Trp Tyr Ser Lys Ser Ile Leu Ser Gly Ile Thr  
180 185 190

<210> 160

<211> 207

<212> PRT

<213> Homo sapiens

<400> 160

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys  
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Gly Asn Ser Lys Lys  
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln  
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His Ser His  
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys  
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Gly Phe Ala Lys Cys  
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile  
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Ile Asp  
115 120 125

Lys Glu Ile Glu Leu His Arg Ile Leu His His Lys His Val Val Gln  
130 135 140

Phe Tyr His Tyr Phe Glu Asp Lys Glu Asn Ile Tyr Ile Leu Leu Glu  
145 150 155 160

Tyr Cys Ser Arg Arg Leu Gln Gly Ser Gln Lys Asn Asp Leu Glu Tyr  
165 170 175

Val Glu Glu Asp Gly His Val Val Arg Lys Gln Phe Pro Cys Gly  
180 185 190

Leu Leu Asp Trp Val Glu Pro Glu Gln Ala Lys Ala Tyr Ser Ser  
195 200 205

<210> 161  
<211> 337  
<212> PRT  
<213> Homo sapiens

<400> 161

Met Ser Asp Lys Asp Leu Arg Thr Ala Ala Ala Gly Gly His Leu  
1 5 10 15

Val Ala Ile Leu Thr Val Phe Ile Pro Gln Lys Asp Leu Val Glu Glu  
20 25 30

Glu Ala Glu Glu Ala Gly Val Ala Leu Arg Ser Thr Gln Ser Thr Leu  
35 40 45

Gln Ala Gly Leu Ala Ala Asp Ala Trp Ala Ala Pro Ile Ala Met Gln  
50 55 60

Ile Tyr Lys Lys His Leu Asp Pro Arg Pro Gly Pro Cys His Leu Ser  
65 70 75 80

Trp Ala Trp Ala Trp Ala Ser Trp Pro Ala Ala Cys Thr Ala Gly  
85 90 95

Pro Lys Gly Arg Pro Pro Met Thr Gln Val Tyr Glu Arg Leu Glu Lys  
100 105 110

Leu Gln Ala Val Val Ala Gly Val Pro Gly His Leu Glu Ala Ala Ser  
115 120 125

Cys Ile Pro Phe Pro Gln Glu Asn Ser Tyr Val Ser Ser Thr Gly Arg  
130 135 140

Ala Ser Ala Gln Ala Ala Glu Gln Leu Gln Arg Gly Pro Asn Gln Pro  
145 150 155 160

Val Glu Ser Asp Glu Ser Leu Gly Gly Leu Ser Ala Ala Leu Arg Ser  
165 170 175

Trp His Leu Thr Pro Ser Cys Pro Leu Asp Pro Ala Pro Leu Arg Glu  
180 185 190

Ala Gly Cys Pro Gln Gly Asp Thr Ala Gly Glu Ser Ser Trp Gly Ser  
195 200 205

Gly Pro Gly Ser Arg Pro Thr Ala Val Glu Gly Leu Ala Leu Gly Ser  
210 215 220

Ser Ala Ser Ser Ser Glu Pro Pro Gln Ile Ile Ile Asn Pro Ala  
225 230 235 240

Arg Gln Lys Met Val Gln Lys Leu Ala Leu Tyr Glu Asp Gly Ala Leu  
245 250 255

Asp Ser Leu Gln Leu Leu Ser Ser Ser Leu Pro Gly Leu Gly Leu  
260 265 270

Glu Gln Asp Arg Gln Gly Pro Lys Lys Val Met Asn Phe Arg Ala Asp  
275 280 285

Val Phe Thr Trp Ala Asp Pro Pro Asn Pro Glu Val Lys Val Leu Met  
290 295 300

Val Arg Ser Ser His Gly Ala Arg Val Leu Ser Thr Leu Pro Ala Val  
305 310 315 320

Gly Val Gly Ala His Ala Arg Trp Gly Glu Lys Glu Val Ala Leu Leu  
325 330 335

Phe

<210> 162  
<211> 122  
<212> PRT  
<213> Homo sapiens

<400> 162

Met Gly His Ala Leu Cys Val Cys Ser Arg Gly Thr Val Ile Ile Asp  
1 5 10 15

Asn Lys Arg Tyr Leu Phe Ile Gln Lys Leu Gly Glu Gly Phe Ser  
20 25 30

Tyr Val Asp Leu Val Glu Gly Leu His Asp Gly His Phe Tyr Ala Leu  
35 40 45

Lys Arg Ile Leu Cys His Glu Gln Gln Asp Arg Glu Glu Ala Gln Arg  
50 55 60

Glu Ala Asp Met His Arg Leu Phe Asn His Pro Asn Ile Leu Arg Leu  
65 70 75 80

Val Ala Tyr Cys Leu Arg Glu Arg Gly Ala Lys His Glu Ala Trp Leu  
85 90 95

Leu Leu Pro Phe Phe Lys Val Arg Lys Thr Pro Val Tyr Gly Gly

	100	105	110
Cys Ser Arg Ala Thr Tyr Ser Arg Ala Val			
115	120		
<210> 163			
<211> 842			
<212> PRT			
<213> Homo sapiens			
<400> 163			
Met Glu Arg Ala Ile Ser Pro Gly Leu Leu Val Arg Ala Leu Leu Leu			
1	5	10	15
Leu Leu Leu Leu Gly Leu Ala Ala Arg Thr Val Ala Ala Gly Arg Ala			
20	25	30	
Arg Gly Leu Pro Ala Pro Thr Ala Glu Ala Ala Phe Gly Leu Gly Ala			
35	40	45	
Ala Ala Ala Pro Thr Ser Ala Thr Arg Val Pro Ala Ala Gly Ala Val			
50	55	60	
Ala Ala Ala Glu Val Thr Val Glu Asp Ala Glu Ala Leu Pro Ala Ala			
65	70	75	80
Ala Gly Glu Gln Glu Pro Arg Gly Pro Glu Pro Asp Asp Glu Thr Glu			
85	90	95	
Leu Arg Pro Arg Gly Arg Ser Leu Val Ile Ile Ser Thr Leu Asp Gly			
100	105	110	
Arg Ile Ala Ala Leu Asp Pro Glu Asn His Gly Lys Lys Gln Trp Asp			
115	120	125	
Leu Asp Val Gly Ser Gly Ser Leu Val Ser Ser Ser Leu Ser Lys Pro			
130	135	140	
Glu Val Phe Gly Asn Lys Met Ile Ile Pro Ser Leu Asp Gly Ala Leu			
145	150	155	160
Phe Gln Trp Asp Arg Asp Arg Glu Ser Met Glu Thr Val Pro Phe Thr			
165	170	175	
Val Glu Ser Leu Leu Glu Ser Ser Tyr Lys Phe Gly Asp Asp Val Val			
180	185	190	
Leu Val Gly Gly Lys Ser Leu Thr Thr Tyr Gly Leu Ser Ala Tyr Ser			
195	200	205	
Gly Lys Val Arg Tyr Ile Cys Ser Ala Leu Gly Cys Arg Gln Trp Asp			
210	215	220	
Ser Asp Glu Met Glu Gln Glu Glu Asp Ile Leu Leu Leu Gln Arg Thr			
225	230	235	240

Gln Lys Thr Val Arg Ala Val Gly Pro Arg Ser Gly Asn Glu Lys Trp  
245 250 255

Asn Phe Ser Val Gly His Phe Glu Leu Arg Tyr Ile Pro Asp Met Glu  
260 265 270

Thr Arg Ala Gly Phe Ile Glu Ser Thr Phe Lys Pro Asn Glu Asn Thr  
275 280 285

Glu Glu Ser Lys Ile Ile Ser Asp Val Glu Glu Gln Glu Ala Ala Ile  
290 295 300

Met Asp Ile Val Ile Lys Val Ser Val Ala Asp Trp Lys Val Met Ala  
305 310 315 320

Phe Ser Lys Lys Gly Gly His Leu Glu Trp Glu Tyr Gln Phe Cys Thr  
325 330 335

Pro Ile Ala Ser Ala Trp Leu Leu Lys Asp Gly Lys Val Ile Pro Ile  
340 345 350

Ser Leu Phe Asp Asp Thr Ser Tyr Thr Ser Asn Asp Asp Val Leu Glu  
355 360 365

Asp Glu Glu Asp Ile Val Glu Ala Ala Arg Gly Ala Thr Glu Asn Ser  
370 375 380

Val Tyr Leu Gly Met Tyr Arg Gly Gln Leu Tyr Leu Gln Ser Ser Val  
385 390 395 400

Arg Ile Ser Glu Lys Phe Pro Ser Ser Pro Lys Ala Leu Glu Ser Val  
405 410 415

Thr Asn Glu Asn Ala Ile Pro Leu Pro Thr Ile Lys Trp Lys Pro  
420 425 430

Leu Ile His Ser Pro Ser Arg Thr Pro Val Leu Val Gly Ser Asp Glu  
435 440 445

Phe Asp Lys Cys Leu Ser Asn Asp Lys Phe Ser His Glu Glu Tyr Ser  
450 455 460

Asn Gly Ala Leu Ser Ile Leu Gln Tyr Pro Tyr Asp Asn Gly Tyr Tyr  
465 470 475 480

Leu Pro Tyr Tyr Lys Arg Glu Arg Asn Lys Arg Ser Thr Gln Ile Thr  
485 490 495

Val Arg Phe Leu Asp Asn Pro His Tyr Asn Lys Asn Ile Arg Lys Lys  
500 505 510

Asp Pro Val Leu Leu Leu His Trp Trp Lys Glu Ile Val Ala Thr Ile  
515 520 525

Leu Phe Cys Ile Ile Ala Thr Thr Phe Ile Val Arg Arg Leu Phe His  
530 535 540

Pro His Pro His Arg Gln Arg Lys Glu Ser Glu Thr Gln Cys Gln Thr  
545 550 555 560

Glu Asn Lys Tyr Asp Ser Val Ser Gly Glu Ala Asn Asp Ser Ser Trp  
565 570 575

Asn Asp Ile Lys Asn Ser Gly Tyr Ile Ser Arg Tyr Leu Thr Asp Phe  
580 585 590

Glu Pro Ile Gln Cys Leu Gly Arg Gly Phe Gly Val Val Phe Glu  
595 600 605

Ala Lys Asn Lys Val Asp Asp Cys Asn Tyr Ala Ile Lys Arg Ile Arg  
610 615 620

Leu Pro Asn Arg Glu Leu Ala Arg Glu Lys Val Met Arg Glu Val Lys  
625 630 635 640

Ala Leu Ala Lys Leu Glu His Pro Gly Ile Val Arg Tyr Phe Asn Ala  
645 650 655

Trp Leu Glu Ala Pro Pro Glu Lys Trp Gln Glu Lys Met Asp Glu Ile  
660 665 670

Trp Leu Lys Asp Glu Ser Thr Asp Trp Pro Leu Ser Ser Pro Ser Pro  
675 680 685

Met Asp Ala Pro Ser Val Lys Ile Arg Arg Met Asp Pro Phe Ser Thr  
690 695 700

Lys Glu His Ile Glu Ile Ile Ala Pro Ser Pro Gln Arg Ser Arg Ser  
705 710 715 720

Phe Ser Val Gly Ile Ser Cys Asp Gln Thr Ser Ser Ser Glu Ser Gln  
725 730 735

Phe Ser Pro Leu Glu Phe Ser Gly Met Asp His Glu Asp Ile Ser Glu  
740 745 750

Ser Val Asp Ala Ala Tyr Asn Leu Gln Asp Ser Cys Leu Thr Asp Cys  
755 760 765

Asp Val Glu Asp Gly Thr Met Asp Gly Asn Asp Glu Gly His Ser Phe  
770 775 780

Glu Leu Cys Pro Ser Glu Ala Ser Pro Tyr Val Arg Ser Arg Glu Arg  
785 790 795 800

Thr Ser Ser Ser Ile Val Phe Glu Asp Ser Gly Cys Asp Asn Ala Ser  
805 810 815

Ser Lys Glu Glu Pro Lys Thr Asn Arg Leu His Ile Gly Asn His Cys  
820 825 830

Ala Asn Lys Leu Thr Val Thr Val Leu Phe  
835 840

<210> 164  
<211> 743  
<212> PRT  
<213> Homo sapiens

<400> 164

Met Gly Ser Arg Ala Gln Lys Ser Ala Gly Asn Ala Glu Leu Trp Glu  
1 5 10 15

Pro Leu Pro Glu Gly Arg Pro Arg Pro Ala Gly Thr Ser Ser Ala Val  
20 25 30

Ser Ala Trp Ala Ser Leu Lys Leu Cys Leu Arg Gly Gly Ser Gly Arg  
35 40 45

Arg Gln Arg Leu Gly Gly Arg Met Gln Pro Glu Glu Gly His Arg  
50 55 60

Leu Ala Ala Gly Ala Ala Val Arg Gly Ala Ala Ala Thr Val Leu Leu  
65 70 75 80

Arg Leu Arg Asp Asp Leu Asn Val Thr Arg Leu Ser His Phe Glu Tyr  
85 90 95

Val Lys Asn Glu Asp Leu Glu Lys Ile Gly Met Gly Arg Pro Gly Gln  
100 105 110

Arg Arg Leu Trp Glu Ala Val Lys Arg Arg Lys Ala Leu Cys Lys Arg  
115 120 125

Lys Ser Trp Met Asn Lys Val Phe Ser Gly Lys Arg Leu Glu Ala Glu  
130 135 140

Phe Pro Pro His His Ser Gln Ser Thr Phe Arg Lys Thr Ser Pro Ala  
145 150 155 160

Pro Gly Gly Pro Ala Gly Glu Gly Pro Leu Gln Ser Leu Thr Cys Leu  
165 170 175

Ile Gly Glu Lys Asp Leu Arg Leu Leu Glu Lys Leu Gly Asp Gly Ser  
180 185 190

Phe Gly Val Val Arg Arg Gly Glu Trp Asp Ala Pro Ser Gly Lys Thr  
195 200 205

Val Ser Pro Pro Gln Pro Ala Phe Phe Thr Gln Lys Pro Thr Tyr Asp  
210 215 220

Pro Val Ser Glu Asp Gln Asp Pro Leu Ser Ser Asp Phe Lys Arg Leu  
225 230 235 240

Gly Leu Arg Lys Pro Gly Leu Pro Arg Gly Leu Trp Leu Ala Lys Pro  
245 250 255

Ser Ala Arg Val Pro Gly Thr Lys Ala Ser Arg Gly Ser Gly Ala Glu  
260 265 270

Val Thr Leu Ile Asp Phe Gly Glu Glu Pro Val Val Pro Ala Leu Arg  
275 280 285

Pro Cys Ala Pro Ser Leu Ala Gln Leu Ala Met Asp Ala Cys Ser Leu  
290 295 300

Leu Asp Glu Thr Pro Pro Gln Ser Pro Thr Arg Ala Leu Pro Arg Pro  
305 310 315 320

Leu His Pro Thr Pro Val Val Asp Trp Asp Ala Arg Pro Leu Pro Pro  
325 330 335

Pro Pro Ala Tyr Asp Asp Val Ala Gln Asp Glu Asp Asp Phe Glu Ile  
340 345 350

Cys Ser Ile Asn Ser Thr Leu Val Gly Ala Gly Val Pro Ala Gly Pro  
355 360 365

Ser Gln Gly Gln Thr Asn Tyr Ala Phe Val Pro Glu Gln Ala Arg Pro  
370 375 380

Pro Pro Pro Leu Glu Asp Asn Leu Phe Leu Pro Pro Gln Gly Gly  
385 390 395 400

Lys Pro Pro Ser Ser Ala Gln Thr Ala Glu Ile Phe Gln Ala Leu Gln  
405 410 415

Gln Glu Cys Met Arg Gln Leu Gln Ala Pro Ala Gly Ser Pro Ala Pro  
420 425 430

Ser Pro Ser Pro Gly Gly Asp Asp Lys Pro Gln Val Pro Pro Arg Val  
435 440 445

Pro Ile Pro Pro Arg Pro Thr Arg Pro His Val Gln Leu Ser Pro Ala  
450 455 460

Pro Pro Gly Glu Glu Thr Ser Gln Trp Pro Gly Pro Ala Ser Pro  
465 470 475 480

Pro Arg Val Pro Pro Arg Glu Pro Leu Ser Pro Gln Gly Ser Arg Thr  
485 490 495

Pro Ser Pro Leu Val Pro Pro Gly Ser Ser Pro Leu Pro Pro Arg Leu  
500 505 510

Ser Ser Ser Pro Gly Lys Thr Met Pro Thr Thr Gln Ser Phe Ala Ser  
515 520 525

Asp Pro Lys Tyr Ala Thr Pro Gln Val Ile Gln Ala Pro Gly Pro Arg  
530 535 540

Ala Gly Pro Cys Ile Leu Pro Ile Val Arg Asp Gly Lys Lys Val Ser  
545 550 555 560

Ser Thr His Tyr Tyr Leu Leu Pro Glu Arg Pro Ser Tyr Leu Glu Arg  
565 570 575

Tyr Gln Arg Phe Leu Arg Glu Ala Gln Ser Pro Glu Glu Pro Thr Pro  
580 585 590

Leu Pro Val Pro Leu Leu Leu Pro Pro Pro Ser Thr Pro Ala Pro Ala  
595 600 605

Ala Pro Thr Ala Thr Val Arg Pro Met Pro Gln Ala Ala Leu Asp Pro  
610 615 620

Lys Ala Asn Phe Ser Thr Asn Asn Ser Asn Pro Gly Ala Arg Pro Pro  
625 630 635 640

Pro Pro Arg Ala Thr Ala Arg Leu Pro Gln Arg Gly Cys Pro Gly Asp  
645 650 655

Gly Pro Glu Ala Gly Arg Pro Ala Asp Lys Ile Gln Met Ala Met Val  
660 665 670

His Gly Val Thr Thr Glu Glu Cys Gln Ala Ala Leu Gln Cys His Gly  
675 680 685

Trp Ser Val Gln Arg Ala Cys Pro Val Ser Glu Gly Gly Ala Ala Leu  
690 695 700

Arg Ala Gly Ser Ala Ala Gln Arg Glu Cys His Lys Val Leu Glu Met  
705 710 715 720

Phe Asp Trp Asn Leu Glu Gln Ala Gly Cys His Leu Leu Gly Ser Trp  
725 730 735

Gly Pro Ala His His Lys Arg  
740

<210> 165  
<211> 604  
<212> PRT  
<213> Homo sapiens

<400> 165

Met Ala Ser Asn Pro Glu Arg Gly Glu Ile Leu Leu Thr Glu Leu Gln  
1 5 10 15

Gly Asp Ser Arg Ser Leu Pro Phe Ser Glu Asn Val Ser Ala Val Gln  
20 25 30

Lys Leu Asp Phe Ser Asp Thr Met Val Gln Gln Lys Leu Asp Asp Ile  
35 40 45

Lys Asp Arg Ile Lys Arg Glu Ile Arg Lys Glu Leu Lys Ile Lys Glu  
50 55 60

Gly Ala Glu Asn Leu Arg Lys Val Thr Thr Asp Lys Lys Ser Leu Ala  
65 70 75 80

Tyr Val Asp Asn Ile Leu Lys Ser Asn Lys Lys Leu Glu Glu Leu

	85	90	95
His His Lys Leu Gln Glu Leu Asn Ala His Ile Val Val Ser Asp Pro			
100	105		110
Glu Asp Ile Thr Asp Cys Pro Arg Thr Pro Asp Thr Pro Asn Asn Asp			
115	120		125
Pro Arg Cys Ser Thr Ser Asn Asn Arg Leu Lys Ala Leu Gln Lys Gln			
130	135		140
Leu Asp Ile Glu Leu Lys Val Lys Gln Gly Ala Glu Asn Met Ile Gln			
145	150	155	160
Met Tyr Ser Asn Gly Ser Ser Lys Asp Arg Lys Leu His Gly Thr Ala			
165	170		175
Gln Gln Leu Leu Gln Asp Ser Lys Thr Lys Ile Glu Val Ile Arg Met			
180	185		190
Gln Ile Leu Gln Ala Val Gln Thr Asn Glu Leu Ala Phe Asp Asn Ala			
195	200		205
Lys Pro Val Ile Ser Pro Leu Glu Leu Arg Met Glu Glu Leu Arg His			
210	215		220
His Phe Arg Ile Glu Phe Ala Val Ala Glu Gly Ala Lys Asn Val Met			
225	230	235	240
Lys Leu Leu Gly Ser Gly Lys Val Thr Asp Arg Lys Ala Leu Ser Glu			
245	250		255
Ala Gln Ala Arg Phe Asn Glu Ser Ser Gln Lys Leu Asp Leu Leu Lys			
260	265		270
Tyr Ser Leu Glu Gln Arg Leu Asn Glu Val Pro Lys Asn His Pro Lys			
275	280		285
Ser Arg Ile Ile Ile Glu Glu Leu Ser Leu Val Ala Ala Ser Pro Thr			
290	295		300
Leu Ser Pro Arg Gln Ser Met Ile Ser Thr Gln Asn Gln Tyr Ser Thr			
305	310	315	320
Leu Ser Lys Pro Ala Ala Leu Thr Gly Thr Leu Glu Val Arg Leu Met			
325	330		335
Gly Cys Gln Asp Ile Leu Glu Asn Val Pro Gly Arg Ser Lys Ala Thr			
340	345		350
Ser Val Ala Leu Pro Gly Trp Ser Pro Ser Glu Thr Arg Ser Ser Phe			
355	360		365
Met Ser Arg Thr Ser Lys Ser Lys Ser Gly Ser Ser Arg Asn Leu Leu			
370	375		380
Lys Thr Asp Asp Leu Ser Asn Asp Val Cys Ala Val Leu Lys Leu Asp			

385                    390                    395                    400  
Asn Thr Val Val Gly Gln Thr Ser Trp Lys Pro Ile Ser Asn Gln Ser  
        405                    410                    415  
Trp Asp Gln Lys Phe Thr Leu Glu Leu Asp Arg Ser Arg Glu Leu Glu  
        420                    425                    430  
Ile Ser Val Tyr Trp Arg Asp Trp Arg Ser Leu Cys Ala Val Lys Phe  
        435                    440                    445  
Leu Arg Leu Glu Asp Phe Leu Asp Asn Gln Arg His Gly Met Cys Leu  
        450                    455                    460  
Tyr Leu Glu Pro Gln Gly Thr Leu Phe Ala Glu Val Thr Phe Phe Asn  
        465                    470                    475                    480  
Pro Val Ile Glu Arg Arg Pro Lys Leu Gln Arg Gln Lys Lys Ile Phe  
        485                    490                    495  
Ser Lys Gln Gln Gly Lys Thr Phe Leu Arg Ala Pro Gln Met Asn Ile  
        500                    505                    510  
Asn Ile Ala Thr Trp Gly Arg Leu Val Arg Arg Ala Ile Pro Thr Val  
        515                    520                    525  
Asn His Ser Gly Thr Phe Ser Pro Gln Ala Pro Val Pro Thr Thr Val  
        530                    535                    540  
Pro Val Val Asp Val Arg Ile Pro Gln Leu Ala Pro Pro Ala Arg Tyr  
        545                    550                    555                    560  
Val Ser Glu Ile Leu Ser Ile Ser Tyr Thr Lys Leu Leu Gly His Ser  
        565                    570                    575  
Tyr Val Leu Ile Ile Ala Gly Val Leu Ser Leu Ala Phe Phe Pro Ser  
        580                    585                    590  
Ser Ile Leu Lys Val Val Phe Cys Leu Leu Lys Lys  
        595                    600  
<210> 166  
<211> 613  
<212> PRT  
<213> Homo sapiens  
  
<400> 166  
  
Met Ala Ser Asn Pro Glu Arg Gly Glu Ile Leu Leu Thr Glu Leu Gln  
1                    5                            10                    15  
Gly Asp Ser Arg Ser Leu Pro Phe Ser Glu Asn Val Ser Ala Val Gln  
20                    25                            30  
Lys Leu Asp Phe Ser Asp Thr Met Val Gln Gln Lys Leu Asp Asp Ile  
35                    40                            45

Lys Asp Arg Ile Lys Arg Glu Ile Arg Lys Glu Leu Lys Ile Lys Glu  
50 55 60

Gly Ala Glu Asn Leu Arg Lys Val Thr Thr Asp Lys Lys Ser Leu Ala  
65 70 75 80

Tyr Val Asp Asn Ile Leu Lys Lys Ser Asn Lys Lys Leu Glu Glu Leu  
85 90 95

His His Lys Leu Gln Glu Leu Asn Ala His Ile Val Val Ser Asp Pro  
100 105 110

Glu Asp Ile Thr Asp Cys Pro Arg Thr Pro Asp Thr Pro Asn Asn Asp  
115 120 125

Pro Arg Cys Ser Thr Ser Asn Asn Arg Leu Lys Ala Leu Gln Lys Gln  
130 135 140

Leu Asp Ile Glu Leu Lys Val Lys Gln Gly Ala Glu Asn Met Ile Gln  
145 150 155 160

Met Tyr Ser Asn Gly Ser Ser Lys Asp Arg Lys Leu His Gly Thr Ala  
165 170 175

Gln Gln Leu Leu Gln Asp Ser Lys Thr Lys Ile Glu Val Ile Arg Met  
180 185 190

Gln Ile Leu Gln Ala Val Gln Thr Asn Glu Leu Ala Phe Asp Asn Ala  
195 200 205

Lys Pro Val Ile Ser Pro Leu Glu Leu Arg Met Glu Glu Leu Arg His  
210 215 220

His Phe Arg Ile Glu Phe Ala Val Ala Glu Gly Ala Lys Asn Val Met  
225 230 235 240

Lys Leu Leu Gly Ser Gly Lys Val Thr Asp Arg Lys Ala Leu Ser Glu  
245 250 255

Ala Gln Ala Arg Phe Asn Glu Ser Ser Gln Lys Leu Asp Leu Leu Lys  
260 265 270

Tyr Ser Leu Glu Gln Arg Leu Asn Glu Val Pro Lys Asn His Pro Lys  
275 280 285

Ser Arg Ile Ile Ile Glu Glu Leu Ser Leu Val Ala Ala Ser Pro Thr  
290 295 300

Leu Ser Pro Arg Gln Ser Met Ile Ser Thr Gln Asn Gln Tyr Ser Thr  
305 310 315 320

Leu Ser Lys Pro Ala Ala Leu Thr Gly Thr Leu Glu Val Arg Leu Met  
325 330 335

Gly Cys Gln Asp Ile Leu Glu Asn Val Pro Gly Arg Ser Lys Ala Thr  
340 345 350

Ser Val Ala Leu Pro Gly Trp Ser Pro Ser Glu Thr Arg Ser Ser Phe  
355 360 365

Met Ser Arg Thr Ser Lys Ser Lys Ser Gly Ser Ser Arg Asn Leu Leu  
370 375 380

Lys Thr Asp Asp Leu Ser Asn Asp Val Cys Ala Val Leu Lys Leu Asp  
385 390 395 400

Asn Thr Val Val Gly Gln Thr Ser Trp Lys Pro Ile Ser Asn Gln Ser  
405 410 415

Trp Asp Gln Lys Phe Thr Leu Glu Leu Asp Arg Ser Arg Glu Leu Glu  
420 425 430

Ile Ser Val Tyr Trp Arg Asp Trp Arg Ser Leu Cys Ala Val Lys Phe  
435 440 445

Leu Arg Leu Glu Asp Phe Leu Asp Asn Gln Arg His Gly Met Cys Leu  
450 455 460

Tyr Leu Glu Pro Gln Gly Thr Leu Phe Ala Glu Val Thr Phe Phe Asn  
465 470 475 480

Pro Val Ile Glu Arg Arg Pro Lys Leu Gln Arg Gln Lys Lys Ile Phe  
485 490 495

Ser Lys Gln Gln Gly Lys Thr Phe Leu Arg Ala Pro Gln Met Asn Ile  
500 505 510

Asn Ile Ala Thr Trp Gly Arg Leu Val Arg Arg Ala Ile Pro Thr Val  
515 520 525

Asn His Ser Gly Thr Phe Ser Pro Gln Ala Pro Val Pro Thr Thr Val  
530 535 540

Pro Val Val Asp Val Arg Ile Pro Gln Leu Ala Pro Pro Ala Ser Asp  
545 550 555 560

Ser Thr Val Thr Lys Leu Asp Phe Asp Leu Glu Pro Glu Pro Pro Pro  
565 570 575

Ala Pro Pro Arg Ala Ser Ser Leu Gly Glu Ile Asp Glu Ser Ser Glu  
580 585 590

Leu Arg Val Leu Asp Ile Pro Gly Gln Ala Ser His Phe Lys Pro Cys  
595 600 605

Ile Ile Pro Leu His  
610

<210> 167  
<211> 133  
<212> PRT  
<213> Homo sapiens

<400> 167

Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser  
1 5 10 15

Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg  
20 25 30

Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr  
35 40 45

Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln  
50 55 60

Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Ile Ile  
65 70 75 80

Glu Lys Gln Ala Gly His Ser Arg Ser Arg Val Phe Arg Glu Val Glu  
85 90 95

Thr Leu Tyr Gln Cys Gln Gly Asn Lys Asn Ile Leu Glu Leu Ile Glu  
100 105 110

Phe Phe Glu Asp Asp Thr Arg Phe Tyr Leu Val Phe Glu Lys Leu Gln  
115 120 125

Gly Gly Thr Tyr Arg  
130

<210> 168  
<211> 153  
<212> PRT  
<213> Homo sapiens

<400> 168

Met Leu Gln Val Gly Val Leu Arg Asp Arg Ser Pro Ala Gly Ala Ser  
1 5 10 15

Glu Gly Phe His Val Arg Gly Arg Trp Arg Thr Glu Asp Cys His Leu  
20 25 30

Arg Thr Lys Ala Ile Glu Thr Leu Arg Val Ala Gly Arg His Gln Leu  
35 40 45

Pro Asp Arg Ser Phe Ile Ser Phe Gly Ile Ser Ser Leu Gln Met Val  
50 55 60

Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser Glu Pro  
65 70 75 80

Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg Arg Gly  
85 90 95

Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr Lys Leu  
100 105 110

Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln Gly Ala

115 120 125

Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Val Ser Val Ser  
130 135 140

Ala Glu Cys Gln Ala Leu Leu Cys Lys  
145 150

<210> 169  
<211> 231  
<212> PRT  
<213> Homo sapiens

<400> 169

Met Gly Ser Gly Met Lys Leu Asn Asn Ser Cys Thr Pro Ile Thr Thr  
1 5 10 15

Pro Glu Leu Thr Thr Pro Cys Gly Ser Ala Glu Tyr Met Ala Pro Glu  
20 25 30

Val Val Glu Val Phe Thr Asp Gln Ala Thr Phe Tyr Asp Lys Arg Cys  
35 40 45

Asp Leu Trp Ser Leu Gly Val Val Leu Tyr Ile Met Leu Ser Gly Tyr  
50 55 60

Pro Pro Phe Val Gly His Cys Gly Ala Asp Cys Gly Trp Asp Arg Gly  
65 70 75 80

Glu Val Cys Arg Val Cys Gln Asn Lys Leu Phe Glu Ser Ile Gln Glu  
85 90 95

Gly Lys Tyr Glu Phe Pro Asp Lys Asp Trp Ala His Ile Ser Ser Glu  
100 105 110

Ala Lys Asp Leu Ile Ser Lys Leu Leu Val Arg Asp Ala Lys Gln Arg  
115 120 125

Leu Ser Ala Ala Gln Val Leu Gln His Pro Trp Val Gln Gly Gln Ala  
130 135 140

Pro Glu Lys Gly Leu Pro Thr Pro Gln Val Leu Gln Arg Asn Ser Ser  
145 150 155 160

Thr Met Asp Leu Thr Leu Phe Ala Ala Glu Ala Ile Ala Leu Asn Arg  
165 170 175

Gln Leu Ser Gln His Glu Glu Asn Glu Leu Ala Glu Glu Pro Glu Ala  
180 185 190

Leu Ala Asp Gly Leu Cys Ser Met Lys Leu Ser Pro Pro Cys Lys Ser  
195 200 205

Arg Leu Ala Arg Arg Arg Ala Leu Ala Gln Ala Gly Arg Gly Glu Asp  
210 215 220

Arg Ser Pro Pro Thr Ala Leu  
225 230

<210> 170  
<211> 146  
<212> PRT  
<213> Homo sapiens

<400> 170

Met Arg Lys Gly Val Leu Lys Asp Pro Glu Ile Ala Asp Leu Phe Tyr  
1 5 10 15

Lys Asp Asp Pro Glu Glu Leu Phe Ile Gly Leu His Glu Ile Gly His  
20 25 30

Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu  
35 40 45

Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu  
50 55 60

Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys  
65 70 75 80

His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr  
85 90 95

Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu  
100 105 110

Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr  
115 120 125

His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile  
130 135 140

His Arg  
145

<210> 171  
<211> 123  
<212> PRT  
<213> Homo sapiens

<400> 171

Met Met Glu Glu Leu His Ser Leu Asp Pro Arg Arg Gln Glu Leu Leu  
1 5 10 15

Glu Ala Arg Phe Thr Gly Val Gly Val Ser Lys Gly Pro Leu Asn Ser  
20 25 30

Glu Ser Ser Asn Gln Ser Leu Cys Ser Val Gly Ser Leu Ser Asp Lys  
35 40 45

Glu Val Glu Thr Pro Glu Lys Lys Gln Asn Asp Gln Arg Asn Arg Lys

50                    55                    60

Arg Lys Ala Glu Pro Tyr Glu Thr Ser Gln Gly Lys Gly Thr Pro Arg  
65                    70                    75                    80

Gly His Lys Ile Ser Asp Tyr Phe Glu Thr Ala Pro Leu Trp Phe Arg  
85                    90                    95

Trp Gln Cys Cys Lys Gly Gly Asn Arg Gly Ala Val Cys Ser Ala Asn  
100                  105                  110

Pro His Val Ser Asp Ala Ser Lys Thr Ser Ala  
115                  120

<210> 172  
<211> 478  
<212> PRT  
<213> Homo sapiens

<400> 172

Met Val Gly Ile Lys Glu Arg Pro Ser Ser Asn Leu Pro Cys Pro Pro  
1                    5                    10                    15

Leu Pro Pro Gln Thr Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg  
20                  25                  30

Leu Asp Ile Leu Leu Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln  
35                  40                  45

Asp Ser Pro Ser Leu Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu  
50                  55                  60

Leu Asp Glu Arg Leu Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg  
65                  70                  75                  80

Phe Ser Arg Phe Ala Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala  
85                  90                  95

Arg Thr Gln Thr Val Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr  
100                105                110

Ile Lys Thr Gly Arg Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly  
115                120                125

Val Val Val Leu Glu Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His  
130                135                140

Gly Ala Arg Thr Lys Tyr Leu Lys Asp Leu Val Glu Glu Ala Glu  
145                150                155                160

Glu Ala Gly Val Ala Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly  
165                170                175

Leu Ala Ala Asp Ala Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys  
180                185                190

Lys His Leu Asp Pro Arg Pro Gly Pro Cys His Leu Ser Trp Ala Trp  
195 200 205

Ala Trp Ala Ser Trp Pro Ala Ala Ala Cys Thr Ala Gly Pro Lys Gly  
210 215 220

Arg Pro Pro Met Thr Gln Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala  
225 230 235 240

Val Val Ala Gly Val Pro Gly His Leu Glu Ala Ala Ser Cys Ile Pro  
245 250 255

Phe Pro Gln Glu Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser  
260 265 270

Gly Ala Ala Pro Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala  
275 280 285

Gln Ala Ala Glu Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser  
290 295 300

Asp Glu Ser Leu Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu  
305 310 315 320

Thr Pro Ser Cys Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys  
325 330 335

Pro Gln Gly Asp Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly  
340 345 350

Ser Arg Pro Thr Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser  
355 360 365

Ser Ser Ser Glu Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys  
370 375 380

Met Val Gln Lys Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu  
385 390 395 400

Gln Leu Leu Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp  
405 410 415

Arg Gln Gly Pro Lys Lys Val Met Asn Phe Arg Ala Asp Val Phe Thr  
420 425 430

Trp Ala Asp Pro Pro Asn Pro Glu Val Lys Val Leu Met Val Arg Ser  
435 440 445

Ser His Gly Ala Arg Val Leu Ser Thr Leu Pro Ala Val Gly Val Gly  
450 455 460

Ala His Ala Arg Trp Gly Glu Lys Glu Val Ala Leu Leu Phe  
465 470 475

<210> 173

<211> 344

<212> PRT

<213> Homo sapiens

<400> 173

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln  
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys  
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu  
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln  
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val  
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg  
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly  
100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu  
115 120 125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser  
130 135 140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu  
145 150 155 160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Ser Pro Ala Pro  
165 170 175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly  
180 185 190

Ala Arg Pro Ser Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly  
195 200 205

Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly  
210 215 220

Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg  
225 230 235 240

Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe  
245 250 255

Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val  
260 265 270

Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr  
275 280 285

Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr  
290 295 300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu  
305 310 315 320

Gly Thr Ala Arg Ala Ser Gln Val Ser Cys Asn Arg Val Ser Ser Cys  
325 330 335

Val Ser Lys Ser Ser Pro Gly Leu  
340

<210> 174  
<211> 336  
<212> PRT  
<213> Homo sapiens

<400> 174

Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu Leu Ala Leu  
1 5 10 15

Ala Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg Asp Leu Lys  
20 25 30

Pro Glu Asn Ile Leu Leu Asp Glu Glu Gly His Ile Lys Leu Thr Asp  
35 40 45

Phe Gly Leu Ser Lys Glu Ser Ile Asp His Glu Lys Lys Ala Tyr Ser  
50 55 60

Phe Cys Gly Thr Val Glu Tyr Met Ala Pro Glu Val Val Asn Arg Arg  
65 70 75 80

Gly His Thr Gln Ser Ala Asp Trp Trp Ser Phe Gly Val Leu Met Phe  
85 90 95

Glu Met Leu Thr Gly Thr Leu Pro Phe Gln Gly Lys Asp Arg Lys Glu  
100 105 110

Thr Met Thr Met Ile Leu Lys Ala Lys Leu Gly Met Pro Gln Phe Leu  
115 120 125

Ser Pro Glu Ala Gln Ser Leu Leu Arg Met Leu Phe Lys Arg Asn Pro  
130 135 140

Ala Asn Arg Leu Gly Ala Gly Pro Asp Gly Val Glu Glu Ile Lys Arg  
145 150 155 160

His Ser Phe Phe Ser Thr Ile Asp Trp Asn Lys Leu Tyr Arg Arg Glu  
165 170 175

Ile His Pro Pro Phe Lys Pro Ala Thr Gly Arg Pro Glu Asp Thr Phe  
180 185 190

Tyr Phe Asp Pro Glu Phe Thr Ala Lys Thr Pro Lys Asp Ser Pro Gly

195

200

205

Ile Pro Pro Ser Ala Asn Ala His Gln Leu Phe Arg Gly Phe Ser Phe  
210 215 220

Val Ala Ile Thr Ser Asp Asp Glu Ser Gln Ala Met Gln Thr Val Gly  
225 230 235 240

Val His Ser Ile Val Gln Gln Leu His Arg Asn Ser Ile Gln Phe Thr  
245 250 255

Asp Gly Tyr Glu Val Lys Glu Asp Ile Gly Val Gly Ser Tyr Ser Val  
260 265 270

Cys Lys Arg Cys Ile His Lys Ala Thr Asn Met Glu Phe Ala Val Lys  
275 280 285

Val Asn Phe Phe Tyr Leu Lys Cys Asn Ser Tyr Ser Ser Cys Ser Cys  
290 295 300

Met Ser Val Pro Val Lys Asn Tyr Thr Pro Leu Val Val Lys Ser Ala  
305 310 315 320

Phe Cys Tyr Lys Lys Val Lys Tyr Leu Ala Ser Asp Leu Gln Arg Ser  
325 330 335

<210> 175

<211> 198

<212> PRT

<213> Homo sapiens

<400> 175

Met Pro Leu Ala Gln Leu Ala Asp Pro Trp Gln Lys Met Ala Val Glu  
1 5 10 15

Ser Pro Ser Asp Ser Ala Glu Asn Gly Gln Gln Ile Met Asp Glu Pro  
20 25 30

Met Gly Glu Glu Glu Ile Asn Pro Gln Thr Glu Glu Val Ser Ile Lys  
35 40 45

Glu Ile Ala Ile Thr His His Val Lys Glu Gly His Glu Lys Ala Asp  
50 55 60

Pro Ser Gln Phe Glu Leu Leu Lys Val Leu Gly Gln Gly Ser Phe Gly  
65 70 75 80

Lys Val Phe Leu Val Lys Lys Ile Ser Gly Ser Asp Ala Arg Gln Leu  
85 90 95

Tyr Ala Met Lys Val Leu Lys Lys Ala Thr Leu Lys Val Arg Asp Arg  
100 105 110

Val Arg Thr Lys Met Glu Arg Asp Ile Leu Val Glu Val Asn His Pro  
115 120 125

Phe Ile Val Lys Leu His Tyr Ala Phe Gln Thr Glu Gly Lys Leu Tyr  
130 135 140

Leu Ile Leu Asp Phe Leu Arg Gly Gly Asp Leu Phe Thr Arg Leu Ser  
145 150 155 160

Lys Glu Val Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu  
165 170 175

Leu Ala Leu Ala Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg  
180 185 190

Asp Leu Lys Pro Glu Lys  
195

<210> 176  
<211> 489  
<212> PRT  
<213> Homo sapiens

<400> 176

Met Ser Thr Glu Ala Asp Glu Gly Ile Thr Phe Ser Val Pro Pro Phe  
1 5 10 15

Ala Pro Ser Gly Phe Cys Thr Ile Pro Glu Gly Ile Cys Arg Arg  
20 25 30

Gly Gly Ala Ala Ala Val Gly Glu Gly Glu His Gln Leu Pro Pro  
35 40 45

Pro Pro Pro Gly Ser Phe Trp Asn Val Glu Ser Ala Ala Ala Pro Gly  
50 55 60

Ile Gly Cys Pro Ala Ala Thr Ser Ser Ser Ala Thr Arg Gly Arg  
65 70 75 80

Gly Ser Ser Val Gly Gly Ser Arg Arg Thr Thr Val Ala Tyr Val  
85 90 95

Ile Asn Glu Ala Ser Gln Gly Gln Leu Val Val Ala Glu Ser Glu Ala  
100 105 110

Leu Gln Ser Leu Arg Glu Ala Cys Glu Thr Val Gly Ala Thr Leu Glu  
115 120 125

Thr Leu His Phe Gly Lys Leu Asp Phe Gly Glu Thr Thr Val Leu Asp  
130 135 140

Arg Phe Tyr Asn Ala Asp Ile Ala Val Val Glu Met Ser Asp Ala Phe  
145 150 155 160

Arg Gln Pro Ser Leu Phe Tyr His Leu Gly Val Arg Glu Ser Phe Ser  
165 170 175

Met Ala Asn Asn Ile Ile Leu Tyr Cys Asp Thr Asn Ser Asp Ser Leu  
180 185 190

Gln Ser Leu Lys Glu Ile Ile Cys Gln Lys Asn Thr Met Cys Thr Gly  
195 200 205

Asn Tyr Thr Phe Val Pro Tyr Met Ile Thr Pro His Asn Lys Val Tyr  
210 215 220

Cys Cys Asp Ser Ser Phe Met Lys Gly Leu Thr Glu Leu Met Gln Pro  
225 230 235 240

Asn Phe Glu Leu Leu Gly Pro Ile Cys Leu Pro Leu Val Asp Arg  
245 250 255

Phe Ile Gln Leu Leu Lys Val Ala Gln Ala Ser Ser Ser Gln Tyr Phe  
260 265 270

Arg Glu Ser Ile Leu Asn Asp Ile Arg Lys Ala Arg Asn Leu Tyr Thr  
275 280 285

Gly Lys Glu Leu Ala Ala Glu Leu Ala Arg Ile Arg Gln Arg Val Asp  
290 295 300

Asn Ile Glu Val Leu Thr Ala Asp Ile Val Ile Asn Leu Leu Leu Ser  
305 310 315 320

Tyr Arg Asp Ile Gln Asp Tyr Asp Ser Ile Val Lys Leu Val Glu Thr  
325 330 335

Leu Glu Lys Leu Pro Thr Phe Asp Leu Ala Ser His His His Val Lys  
340 345 350

Phe His Tyr Ala Phe Ala Leu Asn Arg Arg Asn Leu Pro Gly Asp Arg  
355 360 365

Ala Lys Ala Leu Asp Ile Met Ile Pro Met Val Gln Ser Glu Gly Gln  
370 375 380

Val Ala Ser Asp Met Tyr Cys Leu Val Gly Arg Ile Tyr Lys Asp Met  
385 390 395 400

Phe Leu Asp Ser Asn Phe Thr Asp Thr Glu Ser Arg Asp His Gly Ala  
405 410 415

Ser Trp Phe Lys Lys Ala Phe Glu Ser Glu Pro Thr Leu Gln Ser Gly  
420 425 430

Ile Asn Tyr Ala Val Leu Leu Ala Ala Gly His Gln Phe Glu Ser  
435 440 445

Ser Phe Glu Leu Arg Lys Val Gly Asn Tyr Asn Leu Asn Phe Tyr Met  
450 455 460

Glu Ile Lys Lys Leu Gly Pro Asn Leu Val Gln Arg Arg Ile Ser Ala  
465 470 475 480

Asp Ser Asp Gly Ser Pro Gly Phe Val  
485

<210> 177  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 177

Met Arg Glu Phe Glu Val Leu Lys Lys Leu Asn His Lys Asn Ile Val  
1 5 10 15

Lys Leu Phe Ala Ile Glu Glu Thr Thr Thr Arg His Lys Val Leu  
20 25 30

Ile Met Glu Phe Cys Pro Cys Gly Ser Leu Tyr Thr Val Leu Glu Glu  
35 40 45

Pro Ser Asn Ala Tyr Gly Leu Pro Glu Ser Glu Phe Leu Ile Val Leu  
50 55 60

Arg Asp Val Val Gly Gly Met Asn His Leu Arg Glu Asn Gly Ile Val  
65 70 75 80

His Arg Asp Ile Lys Pro Gly Asn Ile Met Arg Ala Leu Tyr His Ser  
85 90 95

Leu Val Asp Asp Ser Phe His Pro Pro  
100 105

<210> 178  
<211> 413  
<212> PRT  
<213> Homo sapiens

<220>  
<221> -  
<222> (1)...(413)  
<223> "XAA" can be any amino acid

<400> 178

Met Tyr Cys Phe Gly Arg Lys Xaa Tyr Ile Ser Thr Arg Pro Cys Phe  
1 5 10 15

Pro Asn Lys Thr Cys Gln Lys Met Leu Ile Ile Leu Thr Ser Ala Leu  
20 25 30

Gln Ile Ala His Arg Cys Ile Cys Arg Ile Leu Leu Gly Ser Arg Val  
35 40 45

Leu Ala Ala Lys Ala Ser Gly Asn Cys Thr Leu Asn Ser Glu Asp Phe  
50 55 60

Ile Phe Asn Ile Gly Ser Ala Ala Tyr Asp Ala Val Leu Asp Arg Asn  
65 70 75 80

Val Ala Ile Lys Lys Leu Ser Arg Pro Phe Gln Asn Gln Thr His Ala  
85 90 95

Lys Arg Ala Tyr Arg Glu Leu Val Leu Met Lys Cys Val Asn His Lys  
100 105 110

Asn Ile Ile Ser Leu Leu Asn Val Phe Thr Pro Gln Lys Thr Leu Glu  
115 120 125

Glu Phe Gln Asp Val Tyr Leu Val Met Glu Leu Met Asp Ala Asn Leu  
130 135 140

Cys Gln Val Ile Gln Met Glu Leu Asp His Glu Arg Met Ser Tyr Leu  
145 150 155 160

Leu Tyr Gln Met Leu Cys Gly Ile Lys His Leu His Ser Ala Gly Ile  
165 170 175

Ile His Arg Asp Leu Lys Pro Ser Asn Ile Val Val Lys Ser Asp Cys  
180 185 190

Thr Leu Lys Ile Leu Asp Phe Gly Leu Ala Arg Thr Ala Gly Thr Ser  
195 200 205

Phe Met Met Thr Pro Tyr Val Val Thr Arg Tyr Tyr Arg Ala Pro Glu  
210 215 220

Val Ile Leu Gly Met Gly Tyr Lys Glu Asn Val Asp Ile Trp Ser Val  
225 230 235 240

Gly Cys Ile Met Gly Glu Met Val Arg His Lys Ile Leu Phe Pro Gly  
245 250 255

Arg Asp Tyr Ile Asp Gln Trp Asn Lys Val Ile Glu Gln Leu Gly Thr  
260 265 270

Pro Cys Pro Glu Phe Met Lys Lys Leu Gln Pro Thr Val Arg Asn Tyr  
275 280 285

Val Glu Asn Arg Pro Lys Tyr Ala Gly Leu Thr Phe Pro Lys Leu Phe  
290 295 300

Pro Asp Ser Leu Phe Pro Ala Asp Ser Glu His Asn Lys Leu Lys Ala  
305 310 315 320

Ser Gln Ala Arg Asp Leu Leu Ser Lys Met Leu Val Ile Asp Pro Ala  
325 330 335

Lys Arg Ile Ser Val Asp Asp Ala Leu Gln His Pro Tyr Ile Asn Val  
340 345 350

Trp Tyr Asp Pro Ala Glu Val Glu Ala Pro Pro Pro Gln Ile Tyr Asp  
355 360 365

Lys Gln Leu Asp Glu Arg Glu His Thr Ile Glu Glu Trp Lys Glu Leu  
370 375 380

Ile Tyr Lys Glu Val Met Asn Ser Glu Glu Lys Thr Lys Asn Gly Val  
385 390 395 400

Val Lys Gly Gln Pro Ser Pro Ser Ala Gln Val Gln Gln  
405 410

<210> 179  
<211> 108  
<212> PRT  
<213> Homo sapiens

<400> 179

Met Ser Lys Ser Lys Val Asp Asn Gln Phe Tyr Ser Val Glu Val Gly  
1 5 10 15

Asp Ser Thr Phe Thr Val Leu Lys Arg Tyr Gln Asn Leu Lys Pro Ile  
20 25 30

Gly Ser Gly Ala Gln Gly Ile Val Cys Ala Ala Tyr Asp Ala Val Leu  
35 40 45

Asp Arg Asn Val Ala Ile Lys Lys Leu Ser Arg Pro Phe Gln Asn Gln  
50 55 60

Thr His Ala Lys Arg Ala Tyr Arg Glu Leu Val Leu Met Lys Cys Val  
65 70 75 80

Asn His Lys Asn Val Ser Phe Val Ile Phe Lys Leu Leu Ala Val Gly  
85 90 95

Val Cys Lys Ile Gly Lys Arg Lys Cys Val Cys Thr  
100 105

<210> 180  
<211> 336  
<212> PRT  
<213> Homo sapiens

<400> 180

Met Ala Met Thr Gly Ser Thr Pro Cys Ser Ser Met Ser Asn His Thr  
1 5 10 15

Lys Glu Arg Val Thr Met Thr Lys Val Thr Leu Glu Asn Phe Tyr Ser  
20 25 30

Asn Leu Ile Ala Gln His Glu Glu Arg Glu Met Arg Gln Lys Lys Leu  
35 40 45

Glu Lys Val Met Glu Glu Gly Leu Lys Asp Glu Glu Lys Arg Leu  
50 55 60

Arg Arg Ser Ala His Ala Arg Lys Glu Thr Glu Phe Leu Arg Leu Lys  
65 70 75 80

Arg Thr Arg Leu Gly Leu Glu Asp Phe Glu Ser Leu Lys Val Ile Gly

85	90	95
Arg Gly Ala Phe Gly Glu Val Arg Leu Val Gln Lys Lys Asp Thr Gly		
100	105	110
His Val Tyr Ala Met Lys Ile Leu Arg Lys Ala Asp Met Leu Glu Lys		
115	120	125
Glu Gln Val Gly His Ile Arg Ala Glu Arg Asp Ile Leu Val Glu Ala		
130	135	140
Asp Ser Leu Trp Val Val Lys Met Phe Tyr Ser Phe Gln Asp Lys Leu		
145	150	155
Asn Leu Tyr Leu Ile Met Glu Phe Leu Pro Gly Gly Asp Met Met Thr		
165	170	175
Leu Leu Met Lys Lys Asp Thr Leu Thr Glu Glu Glu Thr Gln Phe Tyr		
180	185	190
Ile Ala Glu Thr Val Leu Ala Ile Asp Ser Ile His Gln Leu Gly Phe		
195	200	205
Ile His Arg Asp Ile Lys Pro Asp Asn Leu Leu Asp Ser Lys Gly		
210	215	220
His Val Lys Leu Ser Asp Phe Gly Leu Cys Thr Gly Leu Lys Lys Ala		
225	230	240
His Arg Thr Glu Phe Tyr Arg Asn Leu Asn His Ser Leu Pro Ser Asp		
245	250	255
Phe Thr Phe Gln Asn Met Asn Ser Lys Arg Lys Ala Glu Thr Trp Lys		
260	265	270
Arg Asn Arg Arg Gln Leu Ala Phe Ser Thr Val Gly Thr Pro Asp Tyr		
275	280	285
Ile Ala Pro Glu Val Phe Met Gln Thr Gly Tyr Asn Lys Leu Cys Asp		
290	295	300
Trp Trp Ser Leu Gly Val Ile Met Tyr Glu Met Leu Ile Gly Lys Leu		
305	310	320
His Gly Phe Arg Gly Leu Phe Leu Cys Ile His Asp Arg Leu Leu His		
325	330	335
<210> 181		
<211> 415		
<212> PRT		
<213> Homo sapiens		
<220>		
<221> -		
<222> (1)..(415)		
<223> "XAA " can be any amino acid		

<400> 181

Xaa Arg His Glu Ser Ala Arg Ala Ala Arg Val Ser Gly Gly Ser Met  
1 5 10 15

Leu Asp Ile Ile Lys Tyr Ile Val Asn Arg Gly Glu His Lys Asn Gly  
20 25 30

Val Leu Glu Glu Ala Ile Ile Ala Thr Ile Leu Lys Glu Val Leu Glu  
35 40 45

Gly Leu Asp Tyr Leu His Arg Asn Gly Gln Ile His Arg Asp Leu Lys  
50 55 60

Ala Gly Asn Ile Leu Leu Gly Glu Asp Gly Ser Val Gln Ile Ala Asp  
65 70 75 80

Phe Gly Val Ser Ala Phe Leu Ala Thr Gly Gly Asp Val Thr Arg Asn  
85 90 95

Lys Val Arg Lys Thr Phe Val Gly Thr Pro Cys Trp Met Ala Pro Glu  
100 105 110

Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala Asp Met Trp Ser  
115 120 125

Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala Ala Pro Tyr His  
130 135 140

Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu Gln Asn Asp Pro  
145 150 155 160

Pro Thr Leu Glu Thr Gly Val Glu Asp Lys Glu Met Met Lys Lys Tyr  
165 170 175

Gly Lys Ser Phe Arg Lys Leu Leu Ser Leu Cys Leu Gln Lys Asp Pro  
180 185 190

Ser Lys Arg Pro Thr Ala Ala Glu Leu Leu Lys Cys Lys Phe Phe Gln  
195 200 205

Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu Lys Leu Leu Thr Arg Thr  
210 215 220

Pro Asp Ile Ala Gln Arg Ala Lys Lys Val Arg Arg Val Pro Gly Ser  
225 230 235 240

Ser Gly His Leu His Lys Thr Glu Asp Gly Asp Trp Glu Trp Ser Asp  
245 250 255

Asp Glu Met Asp Glu Lys Ser Glu Glu Gly Lys Ala Ala Phe Ser Gln  
260 265 270

Glu Lys Ser Arg Arg Val Lys Glu Glu Asn Pro Glu Ile Ala Val Ser  
275 280 285

Ala Ser Thr Ile Pro Glu Gln Ile Gln Ser Leu Ser Val His Asp Ser  
290 295 300

Gln Gly Pro Pro Asn Ala Asn Glu Asp Tyr Arg Glu Ala Ser Ser Cys  
305 310 315 320

Ala Val Asn Leu Val Leu Arg Leu Arg Asn Ser Arg Lys Glu Leu Asn  
325 330 335

Asp Ile Arg Phe Glu Phe Thr Pro Gly Arg Asp Thr Ala Asp Gly Val  
340 345 350

Ser Gln Glu Leu Phe Ser Ala Gly Leu Val Asp Gly His Asp Val Val  
355 360 365

Ile Val Ala Ala Asn Leu Gln Lys Ile Val Asp Asp Pro Lys Ala Leu  
370 375 380

Lys Thr Leu Thr Phe Lys Leu Ala Ser Gly Cys Asp Gly Ser Glu Ile  
385 390 395 400

Pro Asp Glu Val Lys Leu Ile Gly Phe Ala Gln Leu Ser Val Ser  
405 410 415

<210> 182  
<211> 409  
<212> PRT  
<213> Homo sapiens

<220>  
<221> -  
<222> (1)..(409)  
<223> "Xaa" can be any amino acid

<400> 182

Xaa Arg His Glu Ser Ala Arg Ala Ala Arg Val Ser Gly Gly Ser Met  
1 5 10 15

Leu Asp Ile Ile Lys Tyr Ile Val Asn Arg Gly Glu His Lys Asn Gly  
20 25 30

Val Leu Glu Glu Ala Ile Ile Ala Thr Ile Leu Lys Glu Val Leu Glu  
35 40 45

Gly Leu Asp Tyr Leu His Arg Asn Gly Gln Ile His Arg Asp Leu Lys  
50 55 60

Ala Gly Asn Ile Leu Leu Gly Glu Asp Gly Ser Val Gln Ile Ala Asp  
65 70 75 80

Phe Gly Val Ser Ala Phe Leu Ala Thr Gly Gly Asp Val Thr Arg Asn  
85 90 95

Lys Val Arg Lys Thr Phe Val Gly Thr Pro Cys Trp Met Ala Pro Glu  
100 105 110

Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala Asp Met Trp Ser  
115 120 125

Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala Ala Pro Tyr His  
130 135 140

Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu Gln Asn Asp Pro  
145 150 155 160

Pro Thr Leu Glu Thr Gly Val Glu Asp Lys Glu Met Met Lys Lys Tyr  
165 170 175

Gly Lys Ser Phe Arg Lys Leu Leu Ser Leu Cys Leu Gln Lys Asp Pro  
180 185 190

Ser Lys Arg Pro Thr Ala Ala Glu Leu Leu Lys Cys Lys Phe Phe Gln  
195 200 205

Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu Lys Leu Leu Thr Arg Thr  
210 215 220

Pro Asp Ile Ala Gln Arg Ala Lys Lys Val Arg Arg Val Pro Gly Ser  
225 230 235 240

Ser Gly His Leu His Lys Thr Glu Asp Gly Asp Trp Glu Trp Ser Asp  
245 250 255

Asp Glu Met Asp Glu Lys Ser Glu Glu Gly Lys Ala Ala Phe Ser Gln  
260 265 270

Glu Lys Ser Arg Arg Val Lys Glu Glu Asn Pro Glu Ile Ala Val Ser  
275 280 285

Ala Ser Thr Ile Pro Glu Gln Ile Gln Ser Leu Ser Val His Asp Ser  
290 295 300

Gln Gly Pro Pro Asn Ala Asn Glu Asp Tyr Arg Glu Ala Ser Ser Cys  
305 310 315 320

Ala Val Asn Leu Val Leu Arg Leu Arg Asn Ser Arg Lys Glu Leu Asn  
325 330 335

Asp Ile Arg Phe Glu Phe Thr Pro Gly Arg Asp Thr Ala Asp Gly Val  
340 345 350

Ser Gln Glu Leu Phe Ser Ala Gly Leu Val Asp Gly His Asp Val Val  
355 360 365

Ile Val Ala Ala Asn Leu Gln Lys Ile Val Asp Asp Pro Lys Ala Leu  
370 375 380

Lys Thr Leu Thr Phe Lys Leu Asn Gln Phe Leu His Leu Glu Ala Phe  
385 390 395 400

Asp Ser Ala Ala Leu Gly Asn Val Phe  
405

<210> 183  
<211> 977  
<212> PRT  
<213> Homo sapiens

<400> 183

Met Pro Ala Arg Arg Leu Leu Leu Leu Thr Leu Leu Leu Pro Gly  
1 5 10 15

Leu Gly Ile Phe Gly Ser Thr Ser Thr Val Thr Leu Pro Glu Thr Leu  
20 25 30

Leu Phe Val Ser Thr Leu Asp Gly Ser Leu His Ala Val Ser Lys Arg  
35 40 45

Thr Gly Ser Ile Lys Trp Thr Leu Lys Glu Asp Pro Val Leu Gln Val  
50 55 60

Pro Thr His Val Glu Glu Pro Ala Phe Leu Pro Asp Pro Asn Asp Gly  
65 70 75 80

Ser Leu Tyr Thr Leu Gly Ser Lys Asn Asn Glu Gly Leu Thr Lys Leu  
85 90 95

Pro Phe Thr Ile Pro Glu Leu Val Gln Ala Ser Pro Cys Arg Ser Ser  
100 105 110

Asp Gly Ile Leu Tyr Met Gly Lys Lys Gln Asp Ile Trp Tyr Val Ile  
115 120 125

Asp Leu Leu Thr Gly Glu Lys Gln Gln Thr Leu Ser Ser Ala Phe Ala  
130 135 140

Asp Ser Leu Cys Pro Ser Thr Ser Leu Leu Tyr Leu Gly Arg Thr Glu  
145 150 155 160

Tyr Thr Ile Thr Met Tyr Asp Thr Lys Thr Arg Glu Leu Arg Trp Asn  
165 170 175

Ala Thr Tyr Phe Asp Tyr Ala Ala Ser Leu Pro Glu Asp Glu Gly Asp  
180 185 190

Tyr Lys Met Ser His Phe Val Ser Asn Gly Asp Gly Leu Val Val Thr  
195 200 205

Val Asp Ser Glu Ser Gly Asp Val Leu Trp Ile Gln Asn Tyr Ala Ser  
210 215 220

Pro Val Val Ala Phe Tyr Val Trp Gln Arg Glu Gly Leu Arg Lys Val  
225 230 235 240

Met His Ile Asn Val Ala Val Glu Thr Leu Arg Tyr Leu Thr Phe Met  
245 250 255

Ser Gly Glu Val Gly Arg Ile Thr Lys Trp Lys Tyr Pro Phe Pro Lys

260                    265                    270

Glu Thr Glu Ala Lys Ser Lys Leu Thr Pro Thr Leu Tyr Val Gly Lys  
275                    280                    285

Tyr Ser Thr Ser Leu Tyr Ala Ser Pro Ser Met Val His Glu Gly Val  
290                    295                    300

Ala Val Val Pro Arg Gly Ser Thr Leu Pro Leu Leu Glu Gly Pro Gln  
305                    310                    315                    320

Thr Asp Gly Val Thr Ile Gly Asp Lys Gly Glu Cys Val Ile Thr Pro  
325                    330                    335

Ser Thr Asp Val Lys Phe Asp Pro Gly Leu Lys Ser Lys Asn Lys Leu  
340                    345                    350

Asn Tyr Leu Arg Asn Tyr Trp Leu Leu Ile Gly His His Glu Thr Pro  
355                    360                    365

Leu Ser Ala Ser Thr Lys Met Leu Glu Arg Phe Pro Asn Asn Leu Pro  
370                    375                    380

Lys His Arg Glu Asn Val Ile Pro Ala Asp Ser Glu Lys Lys Ser Phe  
385                    390                    395                    400

Glu Glu Val Ile Asn Leu Val Asp Gln Thr Ser Glu Asn Ala Pro Thr  
405                    410                    415

Thr Val Ser Arg Asp Val Glu Glu Lys Pro Ala His Ala Pro Ala Arg  
420                    425                    430

Pro Glu Ala Pro Val Asp Ser Met Leu Lys Asp Met Ala Thr Ile Ile  
435                    440                    445

Leu Ser Thr Phe Leu Leu Ile Gly Trp Val Ala Phe Ile Ile Thr Tyr  
450                    455                    460

Pro Leu Ser Met His Gln Gln Gln Gln Leu Gln His Gln Gln Phe Gln  
465                    470                    475                    480

Lys Glu Leu Glu Lys Ile Gln Leu Leu Gln Gln Gln Gln Gln Leu  
485                    490                    495

Pro Phe His Pro Pro Gly Asp Thr Ala Gln Asp Gly Glu Leu Leu Asp  
500                    505                    510

Thr Ser Gly Pro Tyr Ser Glu Ser Ser Gly Thr Ser Ser Pro Ser Thr  
515                    520                    525

Ser Pro Arg Ala Ser Asn His Ser Leu Cys Ser Gly Ser Ser Ala Ser  
530                    535                    540

Lys Ala Gly Ser Ser Pro Ser Leu Glu Gln Asp Asp Gly Asp Glu Glu  
545                    550                    555                    560

Thr Ser Val Val Ile Val Gly Lys Ile Ser Phe Cys Pro Lys Asp Val

	565	570	575
Leu Gly His Gly Ala Glu Gly Thr Ile Val Tyr Arg Gly Met Phe Asp			
580	585	590	
Asn Arg Asp Val Ala Val Lys Arg Ile Leu Pro Glu Cys Phe Ser Phe			
595	600	605	
Ala Asp Arg Glu Val Gln Leu Leu Arg Glu Ser Asp Glu His Pro Asn			
610	615	620	
Val Ile Arg Tyr Phe Cys Thr Glu Lys Asp Arg Gln Phe Gln Tyr Ile			
625	630	635	640
Ala Ile Glu Leu Cys Ala Ala Thr Leu Gln Glu Tyr Val Glu Gln Lys			
645	650	655	
Asp Phe Ala His Leu Gly Leu Glu Pro Ile Thr Leu Leu Gln Gln Thr			
660	665	670	
Thr Ser Gly Leu Ala His Leu His Ser Leu Asn Ile Val His Arg Asp			
675	680	685	
Leu Lys Pro His Asn Ile Leu Ile Ser Met Pro Asn Ala His Gly Lys			
690	695	700	
Ile Lys Ala Met Ile Ser Asp Phe Gly Leu Cys Lys Lys Leu Ala Val			
705	710	715	720
Gly Arg His Ser Phe Ser Arg Arg Ser Gly Val Pro Gly Thr Glu Gly			
725	730	735	
Trp Ile Ala Pro Glu Met Leu Ser Glu Asp Cys Lys Glu Asn Pro Thr			
740	745	750	
Tyr Thr Val Asp Ile Phe Ser Ala Gly Cys Val Phe Tyr Tyr Val Val			
755	760	765	
Ser Glu Gly Ser His Pro Phe Gly Lys Ser Leu Gln Arg Gln Ala Asn			
770	775	780	
Ile Leu Leu Gly Ala Cys Ser Leu Asp Cys Leu His Pro Glu Lys His			
785	790	795	800
Glu Asp Val Ile Ala Arg Glu Leu Ile Glu Lys Met Ile Ala Met Asp			
805	810	815	
Pro Gln Lys Arg Pro Ser Ala Asn Asp Val Leu Lys His Pro Phe Phe			
820	825	830	
Trp Ser Leu Glu Lys Gln Leu Gln Phe Phe Gln Asp Val Ser Asp Arg			
835	840	845	
Ile Glu Lys Glu Ser Leu Asp Gly Pro Ile Val Lys Gln Leu Glu Arg			
850	855	860	
Gly Gly Arg Ala Val Val Lys Met Asp Trp Arg Glu Asn Ile Thr Asp			

865                    870                    875                    880

Pro Leu Gln Thr Asp Leu Arg Lys Phe Arg Thr Tyr Lys Gly Gly Ser  
885                    890                    895

Val Arg Asp Leu Leu Arg Ala Met Arg Asn Lys Lys His His Tyr Arg  
900                    905                    910

Glu Leu Pro Ala Glu Val Arg Glu Thr Leu Gly Thr Leu Pro Asp Asp  
915                    920                    925

Phe Val Cys Tyr Phe Thr Ser Arg Phe Pro His Leu Leu Ala His Thr  
930                    935                    940

Tyr Arg Ala Met Glu Leu Cys Ser His Glu Arg Leu Phe Gln Pro Tyr  
945                    950                    955                    960

Tyr Phe His Glu Pro Pro Glu Pro Gln Pro Pro Val Thr Pro Asp Ala  
965                    970                    975

Leu

<210> 184

<211> 540

<212> PRT

<213> Homo sapiens

<400> 184

Met Asn Gly Glu Ala Ile Cys Ser Ala Leu Pro Thr Ile Pro Tyr His  
1                    5                        10                    15

Lys Leu Ala Asp Leu Arg Tyr Leu Ser Arg Gly Ala Ser Gly Thr Val  
20                    25                        30

Ser Ser Ala Arg His Ala Asp Trp Arg Val Gln Val Ala Val Lys His  
35                    40                        45

Leu His Ile His Thr Pro Leu Leu Asp Ser Glu Arg Lys Asp Val Leu  
50                    55                        60

Arg Glu Ala Glu Ile Leu His Lys Ala Arg Phe Ser Tyr Ile Leu Pro  
65                    70                        75                    80

Ile Leu Gly Ile Cys Asn Glu Pro Glu Phe Leu Gly Ile Val Thr Glu  
85                    90                        95

Tyr Met Pro Asn Gly Ser Leu Asn Glu Leu Leu His Arg Lys Thr Glu  
100                    105                        110

Tyr Pro Asp Val Ala Trp Pro Leu Arg Phe Arg Ile Leu His Glu Ile  
115                    120                        125

Ala Leu Gly Val Asn Tyr Leu His Asn Met Thr Pro Pro Leu Leu His  
130                    135                        140

His Asp Leu Lys Thr Gln Asn Ile Leu Leu Asp Asn Glu Phe His Val  
145 150 155 160

Lys Ile Ala Asp Phe Gly Leu Ser Lys Trp Arg Met Met Ser Leu Ser  
165 170 175

Gln Ser Arg Ser Ser Lys Ser Ala Pro Glu Gly Gly Thr Ile Ile Tyr  
180 185 190

Met Pro Pro Glu Asn Tyr Glu Pro Gly Gln Lys Ser Arg Ala Ser Ile  
195 200 205

Lys His Asp Ile Tyr Ser Tyr Ala Val Ile Thr Trp Glu Val Leu Ser  
210 215 220

Arg Lys Gln Pro Phe Glu Asp Val Thr Asn Pro Leu Gln Ile Met Tyr  
225 230 235 240

Ser Val Ser Gln Gly His Arg Pro Val Ile Asn Glu Glu Ser Leu Pro  
245 250 255

Tyr Asp Ile Pro His Arg Ala Arg Met Ile Ser Leu Ile Glu Ser Gly  
260 265 270

Trp Ala Gln Asn Pro Asp Glu Arg Pro Ser Phe Leu Lys Cys Leu Ile  
275 280 285

Glu Leu Glu Pro Val Leu Arg Thr Phe Glu Glu Ile Thr Phe Leu Glu  
290 295 300

Ala Val Ile Gln Leu Lys Lys Thr Lys Leu Gln Ser Val Ser Ser Ala  
305 310 315 320

Ile His Leu Cys Asp Lys Lys Met Glu Leu Ser Leu Asn Ile Pro  
325 330 335

Val Asn His Gly Pro Gln Glu Ser Cys Gly Ser Ser Gln Leu His  
340 345 350

Glu Asn Ser Gly Ser Pro Glu Thr Ser Arg Ser Leu Pro Ala Pro Gln  
355 360 365

Asp Asn Asp Phe Leu Ser Arg Lys Ala Gln Asp Cys Tyr Phe Met Lys  
370 375 380

Leu His His Cys Pro Gly Asn His Ser Trp Asp Ser Thr Ile Ser Gly  
385 390 395 400

Ser Gln Arg Ala Ala Phe Cys Asp His Lys Thr Thr Pro Cys Ser Ser  
405 410 415

Ala Ile Ile Asn Pro Leu Ser Thr Ala Gly Asn Ser Glu Arg Leu Gln  
420 425 430

Pro Gly Ile Ala Gln Gln Trp Ile Gln Ser Lys Arg Glu Asp Ile Val  
435 440 445

Asn Gln Met Thr Glu Ala Cys Leu Asn Gln Ser Leu Asp Ala Leu Leu  
450 455 460

Ser Arg Asp Leu Ile Met Lys Glu Asp Tyr Glu Leu Val Ser Thr Lys  
465 470 475 480

Pro Thr Arg Thr Ser Lys Val Arg Gln Leu Leu Asp Thr Thr Asp Ile  
485 490 495

Gln Gly Glu Glu Phe Ala Lys Val Ile Val Gln Lys Leu Lys Asp Asn  
500 505 510

Lys Gln Met Gly Leu Gln Pro Tyr Pro Glu Ile Leu Val Val Ser Arg  
515 520 525

Ser Pro Ser Leu Asn Leu Leu Gln Asn Lys Ser Met  
530 535 540

<210> 185  
<211> 689  
<212> PRT  
<213> Homo sapiens

<400> 185

Met Ala Asp Leu Glu Ala Val Leu Ala Asp Val Ser Tyr Leu Met Ala  
1 5 10 15

Met Glu Lys Ser Lys Ala Thr Pro Ala Ala Arg Ala Ser Lys Lys Ile  
20 25 30

Leu Leu Pro Glu Pro Ser Ile Arg Ser Val Met Gln Lys Tyr Leu Glu  
35 40 45

Asp Arg Gly Glu Val Thr Phe Glu Lys Ile Phe Ser Gln Lys Leu Gly  
50 55 60

Tyr Leu Leu Phe Arg Asp Phe Cys Leu Asn His Leu Glu Ala Arg  
65 70 75 80

Pro Leu Val Glu Phe Tyr Glu Glu Ile Lys Lys Tyr Glu Lys Leu Glu  
85 90 95

Thr Glu Glu Glu Arg Val Ala Arg Ser Arg Glu Ile Phe Asp Ser Tyr  
100 105 110

Ile Met Lys Glu Leu Leu Ala Cys Ser His Pro Phe Ser Lys Ser Ala  
115 120 125

Thr Glu His Val Gln Gly His Leu Gly Lys Lys Gln Val Pro Pro Asp  
130 135 140

Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Gln Asn Leu Arg Gly Asp  
145 150 155 160

Val Phe Gln Lys Phe Ile Glu Ser Asp Lys Phe Thr Arg Phe Cys Gln  
165 170 175

Trp Lys Asn Val Glu Leu Asn Ile His Leu Thr Met Asn Asp Phe Ser  
180 185 190

Val His Arg Ile Ile Gly Arg Gly Gly Phe Gly Glu Val Tyr Gly Cys  
195 200 205

Arg Lys Arg Asp Thr Gly Lys Met Tyr Ala Met Lys Cys Leu Asp Lys  
210 215 220

Lys Arg Ile Lys Met Lys Gln Gly Glu Thr Leu Ala Leu Asn Glu Arg  
225 230 235 240

Ile Met Leu Ser Leu Val Ser Thr Gly Asp Cys Pro Phe Ile Val Cys  
245 250 255

Met Ser Tyr Ala Phe His Thr Pro Asp Lys Leu Ser Phe Ile Leu Asp  
260 265 270

Leu Met Asn Gly Gly Asp Leu His Tyr His Leu Ser Gln His Gly Val  
275 280 285

Phe Ser Glu Ala Asp Met Arg Phe Tyr Ala Ala Glu Ile Ile Leu Gly  
290 295 300

Leu Glu His Met His Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Pro  
305 310 315 320

Ala Asn Ile Leu Leu Asp Glu His Gly His Val Arg Ile Ser Asp Leu  
325 330 335

Gly Leu Ala Cys Asp Phe Ser Lys Lys Pro His Ala Ser Val Gly  
340 345 350

Thr His Gly Tyr Met Ala Pro Glu Val Leu Gln Lys Gly Val Ala Tyr  
355 360 365

Asp Ser Ser Ala Asp Trp Phe Ser Leu Gly Cys Met Leu Phe Lys Leu  
370 375 380

Leu Arg Gly His Ser Pro Phe Arg Gln His Lys Thr Lys Asp Lys His  
385 390 395 400

Glu Ile Asp Arg Met Thr Leu Thr Met Ala Val Glu Leu Pro Asp Ser  
405 410 415

Phe Ser Pro Glu Leu His Ser Leu Leu Glu Gly Leu Leu Gln Arg Asp  
420 425 430

Val Asn Arg Arg Leu Gly Cys Leu Gly Arg Gly Ala Gln Glu Val Lys  
435 440 445

Glu Ser Pro Phe Phe Arg Ser Leu Asp Trp Gln Met Val Phe Leu Gln  
450 455 460

Arg Tyr Pro Pro Pro Leu Ile Pro Pro Arg Gly Glu Val Asn Ala Ala  
465 470 475 480

Asp Ala Phe Asp Ile Gly Ser Phe Asp Glu Glu Asp Thr Lys Gly Ile  
485 490 495

Lys Leu Leu Asp Ser Asp Gln Glu Leu Tyr Arg Asn Phe Pro Leu Thr  
500 505 510

Ile Ser Glu Arg Trp Gln Gln Glu Val Ala Glu Thr Val Phe Asp Thr  
515 520 525

Ile Asn Ala Glu Thr Asp Arg Leu Glu Ala Arg Lys Lys Ala Lys Asn  
530 535 540

Lys Gln Leu Gly His Glu Glu Asp Tyr Ala Leu Gly Lys Asp Cys Ile  
545 550 555 560

Met His Gly Tyr Met Ser Lys Met Gly Asn Pro Phe Leu Thr Gln Trp  
565 570 575

Gln Arg Arg Tyr Phe Tyr Leu Phe Pro Asn Arg Leu Glu Trp Arg Gly  
580 585 590

Glu Gly Glu Ala Pro Gln Ser Leu Leu Thr Met Glu Glu Ile Gln Ser  
595 600 605

Val Glu Glu Thr Gln Ile Lys Glu Arg Lys Cys Leu Leu Leu Lys Ile  
610 615 620

Arg Gly Gly Lys Gln Phe Ile Leu Gln Cys Asp Ser Asp Pro Glu Leu  
625 630 635 640

Val Gln Trp Lys Lys Glu Leu Arg Asp Ala Tyr Arg Glu Ala Gln Gln  
645 650 655

Leu Val Gln Arg Val Pro Lys Met Lys Asn Lys Pro Arg Ser Pro Val  
660 665 670

Val Glu Leu Ser Lys Val Pro Leu Val Gln Arg Gly Ser Ala Asn Gly  
675 680 685

Leu

<210> 186  
<211> 505  
<212> PRT  
<213> Homo sapiens

<400> 186

Met Gly Leu Val Ser Ser Lys Lys Pro Asp Lys Glu Lys Pro Ile Lys  
1 5 10 15

Glu Lys Asp Lys Gly Gln Trp Ser Pro Leu Lys Val Ser Ala Gln Asp  
20 25 30

Lys Asp Ala Pro Pro Leu Pro Pro Leu Val Val Phe Asn His Leu Thr

35	40	45
Pro Pro Pro Pro Asp Glu His Leu Asp Glu Asp Lys His Phe Val Val		
50	55	60
Ala Leu Tyr Asp Tyr Thr Ala Met Asn Asp Arg Asp Leu Gln Met Leu		
65	70	75
80		
Lys Gly Glu Lys Leu Gln Val Leu Lys Gly Thr Gly Asp Trp Trp Leu		
85	90	95
Ala Arg Ser Leu Val Thr Gly Arg Glu Gly Tyr Val Pro Ser Asn Phe		
100	105	110
Val Ala Arg Val Glu Ser Leu Glu Met Glu Arg Trp Phe Phe Arg Ser		
115	120	125
Gln Gly Arg Lys Glu Ala Glu Arg Gln Leu Leu Ala Pro Ile Asn Lys		
130	135	140
Ala Gly Ser Phe Leu Ile Arg Glu Ser Glu Thr Asn Lys Gly Ala Phe		
145	150	155
160		
Ser Leu Ser Val Lys Asp Val Thr Thr Gln Gly Glu Leu Ile Lys His		
165	170	175
Tyr Lys Ile Arg Cys Leu Asp Glu Gly Gly Tyr Tyr Ile Ser Pro Arg		
180	185	190
Ile Thr Phe Pro Ser Leu Gln Ala Leu Val Gln His Tyr Ser Lys Lys		
195	200	205
Gly Asp Gly Leu Cys Gln Arg Leu Thr Leu Pro Cys Val Arg Pro Ala		
210	215	220
Pro Gln Asn Pro Trp Ala Gln Asp Glu Trp Glu Ile Pro Arg Gln Ser		
225	230	235
240		
Leu Arg Leu Val Arg Lys Leu Gly Ser Gly Gln Phe Gly Glu Val Trp		
245	250	255
Met Gly Tyr Tyr Lys Asn Asn Met Lys Val Ala Ile Lys Thr Leu Lys		
260	265	270
Glu Gly Thr Met Ser Pro Glu Ala Phe Leu Gly Glu Ala Asn Val Met		
275	280	285
Lys Ala Leu Gln His Glu Arg Leu Val Arg Leu Tyr Ala Val Val Thr		
290	295	300
Lys Glu Pro Ile Tyr Ile Val Thr Glu Tyr Met Ala Arg Gly Cys Leu		
305	310	315
320		
Leu Asp Phe Leu Lys Thr Asp Glu Gly Ser Arg Leu Ser Leu Pro Arg		
325	330	335
Leu Ile Asp Met Ser Ala Gln Ile Ala Glu Gly Met Ala Tyr Ile Glu		

340

345

350

Arg Met Asn Ser Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val  
355 360 365

Ser Glu Ala Leu Cys Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Ile  
370 375 380

Ile Asp Ser Glu Tyr Thr Ala Gln Glu Gly Ala Lys Phe Pro Ile Lys  
385 390 395 400

Trp Thr Ala Pro Glu Ala Tyr His Phe Gly Val Phe Thr Ile Lys Ala  
405 410 415

Asp Val Trp Ser Phe Gly Val Leu Leu Met Glu Val Val Thr Tyr Gly  
420 425 430

Arg Val Pro Tyr Pro Gly Met Ser Asn Pro Glu Val Ile Arg Asn Leu  
435 440 445

Glu Arg Gly Tyr Arg Met Pro Arg Pro Asp Thr Cys Pro Pro Glu Leu  
450 455 460

Tyr Arg Gly Val Ile Ala Glu Cys Trp Arg Ser Arg Pro Glu Glu Arg  
465 470 475 480

Pro Thr Phe Glu Phe Leu Gln Ser Val Leu Glu Asp Phe Tyr Thr Ala  
485 490 495

Thr Glu Arg Gln Tyr Glu Leu Gln Pro  
500 505

<210> 187

<211> 298

<212> PRT

<213> Homo sapiens

<400> 187

Met Glu Asn Phe Gln Lys Val Glu Lys Ile Gly Glu Gly Thr Tyr Gly  
1 5 10 15

Val Val Tyr Lys Ala Arg Asn Lys Leu Thr Gly Glu Val Val Ala Leu  
20 25 30

Lys Lys Ile Arg Leu Asp Thr Glu Thr Glu Gly Val Pro Ser Thr Ala  
35 40 45

Ile Arg Glu Ile Ser Leu Leu Lys Glu Leu Asn His Pro Asn Ile Val  
50 55 60

Lys Leu Leu Asp Val Ile His Thr Glu Asn Lys Leu Tyr Leu Val Phe  
65 70 75 80

Glu Phe Leu His Gln Asp Leu Lys Lys Phe Met Asp Ala Ser Ala Leu  
85 90 95

Thr Gly Ile Pro Leu Pro Leu Ile Lys Ser Tyr Leu Phe Gln Leu Leu  
100 105 110

Gln Gly Leu Ala Phe Cys His Ser His Arg Val Leu His Arg Asp Leu  
115 120 125

Lys Pro Gln Asn Leu Leu Ile Asn Thr Glu Gly Ala Ile Lys Leu Ala  
130 135 140

Asp Phe Gly Leu Ala Arg Ala Phe Gly Val Pro Val Arg Thr Tyr Thr  
145 150 155 160

His Glu Val Val Thr Leu Trp Tyr Arg Ala Pro Glu Ile Leu Leu Gly  
165 170 175

Ser Lys Tyr Tyr Ser Thr Ala Val Asp Ile Trp Ser Leu Gly Cys Ile  
180 185 190

Phe Ala Glu Met Val Thr Arg Arg Ala Leu Phe Pro Gly Asp Ser Glu  
195 200 205

Ile Asp Gln Leu Phe Arg Ile Phe Arg Thr Leu Gly Thr Pro Asp Glu  
210 215 220

Val Val Trp Pro Gly Val Thr Ser Met Pro Asp Tyr Lys Pro Ser Phe  
225 230 235 240

Pro Lys Trp Ala Arg Gln Asp Phe Ser Lys Val Val Pro Pro Leu Asp  
245 250 255

Glu Asp Gly Arg Ser Leu Leu Ser Gln Met Leu His Tyr Asp Pro Asn  
260 265 270

Lys Arg Ile Ser Ala Lys Ala Ala Leu Ala His Pro Phe Phe Gln Asp  
275 280 285

Val Thr Lys Pro Val Pro His Leu Arg Leu  
290 295

<210> 188

<211> 387

<212> PRT

<213> Homo sapiens

<400> 188

Met Thr Arg Asp Glu Ala Leu Pro Asp Ser His Ser Ala Gln Asp Phe  
1 5 10 15

Tyr Glu Asn Tyr Glu Pro Lys Glu Ile Leu Gly Arg Gly Val Ser Ser  
20 25 30

Val Val Arg Arg Cys Ile His Lys Pro Thr Ser Gln Glu Tyr Ala Val  
35 40 45

Lys Val Ile Asp Val Thr Gly Gly Ser Phe Ser Pro Glu Glu Val  
50 55 60

Arg Glu Leu Arg Glu Ala Thr Leu Lys Glu Val Asp Ile Leu Arg Lys  
65 70 75 80

Val Ser Gly His Pro Asn Ile Ile Gln Leu Lys Asp Thr Tyr Glu Thr  
85 90 95

Asn Thr Phe Phe Leu Val Phe Asp Leu Met Lys Arg Gly Glu Leu  
100 105 110

Phe Asp Tyr Leu Thr Glu Lys Val Thr Leu Ser Glu Lys Glu Thr Arg  
115 120 125

Lys Ile Met Arg Ala Leu Leu Glu Val Ile Cys Thr Leu His Lys Leu  
130 135 140

Asn Ile Val His Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp Asp  
145 150 155 160

Asn Met Asn Ile Lys Leu Thr Asp Phe Gly Phe Ser Cys Gln Leu Glu  
165 170 175

Pro Gly Glu Arg Leu Arg Glu Val Cys Gly Thr Pro Ser Tyr Leu Ala  
180 185 190

Pro Glu Ile Ile Glu Cys Ser Met Asn Glu Asp His Pro Gly Tyr Gly  
195 200 205

Lys Glu Val Asp Met Trp Ser Thr Gly Val Ile Met Tyr Thr Leu Leu  
210 215 220

Ala Gly Ser Pro Pro Phe Trp His Arg Lys Gln Met Leu Met Leu Arg  
225 230 235 240

Met Ile Met Ser Gly Asn Tyr Gln Phe Gly Ser Pro Glu Trp Asp Asp  
245 250 255

Tyr Ser Asp Thr Val Lys Asp Leu Val Ser Arg Phe Leu Val Val Gln  
260 265 270

Pro Gln Asn Arg Tyr Thr Ala Glu Glu Ala Leu Ala His Pro Phe Phe  
275 280 285

Gln Gln Tyr Leu Val Glu Val Arg His Phe Ser Pro Arg Gly Lys  
290 295 300

Phe Lys Val Ile Ala Leu Thr Val Leu Ala Ser Val Arg Ile Tyr Tyr  
305 310 315 320

Gln Tyr Arg Arg Val Lys Pro Val Thr Arg Glu Ile Val Ile Arg Asp  
325 330 335

Pro Tyr Ala Leu Arg Pro Leu Arg Arg Leu Ile Asp Ala Tyr Ala Phe  
340 345 350

Arg Ile Tyr Gly His Trp Val Lys Lys Gly Gln Gln Gln Asn Arg Ala  
355 360 365

Ala Leu Phe Glu Asn Thr Pro Lys Ala Val Leu Leu Ser Leu Ala Glu  
370                    375                    380

Glu Asp Tyr  
385

<210> 189  
<211> 314  
<212> PRT  
<213> Homo sapiens

<400> 189

Met Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn Arg Ile  
1                    5                    10                    15

Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr Gln Thr  
20                    25                    30

Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu Lys Asp  
35                    40                    45

Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu Arg Leu  
50                    55                    60

Arg His Pro Asn Ile Val Glu Leu Lys Glu Val Val Val Gly Asn His  
65                    70                    75                    80

Leu Glu Ser Ile Phe Leu Val Met Gly Tyr Cys Glu Gln Asp Leu Ala  
85                    90                    95

Ser Leu Leu Glu Asn Met Pro Thr Pro Phe Ser Glu Ala Gln Val Lys  
100                    105                    110

Cys Ile Val Leu Gln Val Leu Arg Gly Leu Gln Tyr Leu His Arg Asn  
115                    120                    125

Phe Ile Ile His Arg Asp Leu Lys Val Ser Asn Leu Leu Met Thr Asp  
130                    135                    140

Lys Gly Cys Val Lys Thr Ala Asp Phe Gly Leu Ala Arg Ala Tyr Gly  
145                    150                    155                    160

Val Pro Val Lys Pro Met Thr Pro Lys Val Val Thr Leu Trp Tyr Arg  
165                    170                    175

Ala Pro Glu Leu Leu Gly Thr Thr Thr Gln Thr Thr Ser Ile Asp  
180                    185                    190

Met Trp Ala Val Gly Cys Ile Leu Ala Glu Leu Leu Ala His Arg Pro  
195                    200                    205

Leu Leu Pro Gly Thr Ser Glu Ile His Gln Ile Asp Leu Ile Val Gln  
210                    215                    220

Leu Leu Gly Thr Pro Ser Glu Asn Ile Trp Pro Gly Phe Ser Lys Leu

225                    230                    235                    240  
Pro Leu Val Gly Gln Tyr Ser Leu Arg Lys Gln Pro Tyr Asn Asn Leu  
                      245                        250                        255  
Lys His Lys Phe Pro Trp Leu Ser Glu Ala Gly Leu Arg Leu Leu His  
                      260                        265                        270  
Phe Leu Phe Met Tyr Asp Pro Lys Lys Arg Ala Thr Ala Gly Asp Cys  
                      275                        280                        285  
Leu Glu Ser Ser Tyr Phe Lys Glu Lys Pro Leu Arg Leu Pro Ile Ser  
                      290                        295                        300  
Gly Val Cys Glu Gly Cys Arg Glu Pro Gly  
                      305                        310  
  
<210> 190  
<211> 314  
<212> PRT  
<213> Homo sapiens  
  
<400> 190  
  
Met Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn Arg Ile  
1                    5                        10                        15  
  
Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr Gln Thr  
                      20                        25                        30  
  
Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu Lys Asp  
                      35                        40                        45  
  
Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu Arg Leu  
                      50                        55                        60  
  
Arg His Pro Asn Ile Val Glu Leu Lys Glu Val Val Val Gly Asn His  
65                    70                        75                        80  
  
Leu Glu Ser Ile Phe Leu Val Met Gly Tyr Cys Glu Gln Asp Leu Ala  
                      85                        90                        95  
  
Ser Leu Leu Glu Asn Met Pro Thr Pro Phe Ser Glu Ala Gln Val Lys  
                      100                        105                        110  
  
Cys Ile Val Leu Gln Val Leu Arg Gly Leu Gln Tyr Leu His Arg Asn  
                      115                        120                        125  
  
Phe Ile Ile His Arg Asp Leu Lys Val Ser Asn Leu Leu Met Thr Asp  
                      130                        135                        140  
  
Lys Gly Cys Val Lys Thr Ala Asp Phe Gly Leu Ala Arg Ala Tyr Gly  
                      145                        150                        155                        160  
  
Val Pro Val Lys Pro Met Thr Pro Lys Val Val Thr Leu Trp Tyr Arg  
                      165                        170                        175

Ala Pro Glu Leu Leu Leu Gly Thr Thr Thr Gln Thr Thr Ser Ile Asp  
180 185 190

Met Trp Ala Val Gly Cys Ile Leu Ala Glu Leu Leu Ala His Arg Pro  
195 200 205

Leu Leu Pro Gly Thr Ser Glu Ile His Gln Ile Asp Leu Ile Val Gln  
210 215 220

Leu Leu Gly Thr Pro Ser Glu Asn Ile Trp Pro Gly Phe Ser Lys Leu  
225 230 235 240

Pro Leu Val Gly Gln Tyr Ser Leu Arg Lys Gln Pro Tyr Asn Asn Leu  
245 250 255

Lys His Lys Phe Pro Trp Leu Ser Glu Ala Gly Leu Arg Leu Leu His  
260 265 270

Phe Leu Phe Met Tyr Asp Pro Lys Lys Arg Ala Thr Ala Gly Asp Cys  
275 280 285

Leu Glu Ser Ser Tyr Phe Lys Glu Lys Pro Leu Arg Leu Pro Ile Ser  
290 295 300

Gly Val Cys Glu Gly Cys Arg Glu Pro Gly  
305 310

<210> 191  
<211> 314  
<212> PRT  
<213> Homo sapiens

<400> 191

Met Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn Arg Ile  
1 5 10 15

Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr Gln Thr  
20 25 30

Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu Lys Asp  
35 40 45

Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu Arg Leu  
50 55 60

Arg His Pro Asn Ile Val Glu Leu Lys Glu Val Val Val Gly Asn His  
65 70 75 80

Leu Glu Ser Ile Phe Leu Val Met Gly Tyr Cys Glu Gln Asp Leu Ala  
85 90 95

Ser Leu Leu Glu Asn Met Pro Thr Pro Phe Ser Glu Ala Gln Val Lys  
100 105 110

Cys Ile Val Leu Gln Val Leu Arg Gly Leu Gln Tyr Leu His Arg Asn  
115 120 125

Phe Ile Ile His Arg Asp Leu Lys Val Ser Asn Leu Leu Met Thr Asp  
130 135 140

Lys Gly Cys Val Lys Thr Ala Asp Phe Gly Leu Ala Arg Ala Tyr Gly  
145 150 155 160

Val Pro Val Lys Pro Met Thr Pro Lys Val Val Thr Leu Trp Tyr Arg  
165 170 175

Ala Pro Glu Leu Leu Leu Gly Thr Thr Gln Thr Thr Ser Ile Asp  
180 185 190

Met Trp Ala Val Gly Cys Ile Leu Ala Glu Leu Leu Ala His Arg Pro  
195 200 205

Leu Leu Pro Gly Thr Ser Glu Ile His Gln Ile Asp Leu Ile Val Gln  
210 215 220

Leu Leu Gly Thr Pro Ser Glu Asn Ile Trp Pro Gly Phe Ser Lys Leu  
225 230 235 240

Pro Leu Val Gly Gln Tyr Ser Leu Arg Lys Gln Pro Tyr Asn Asn Leu  
245 250 255

Lys His Lys Phe Pro Trp Leu Ser Glu Ala Gly Leu Arg Leu Leu His  
260 265 270

Phe Leu Phe Met Tyr Asp Pro Lys Lys Arg Ala Thr Ala Gly Asp Cys  
275 280 285

Leu Glu Ser Ser Tyr Phe Lys Glu Lys Pro Leu Arg Leu Pro Ile Ser  
290 295 300

Gly Val Cys Glu Gly Cys Arg Glu Pro Gly  
305 310

<210> 192  
<211> 887  
<212> PRT  
<213> Homo sapiens

<400> 192

Met Gly Glu Ala Glu Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp  
1 5 10 15

Ile Asn Val Gln Leu Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln  
20 25 30

Lys Ser Tyr Asn Ala Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly  
35 40 45

Leu Tyr Gln Glu Thr Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe  
50 55 60

Ala Glu Gly Lys Pro Ser Ala Leu Pro Val Arg Thr Ser Tyr Lys Ala

65                   70                   75                   80  
Phe Ser Thr Arg Trp Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys  
      85                   90                   95  
Tyr Pro Asp Leu Pro Arg Asn Ala Gln Val Ala Leu Thr Ile Trp Asp  
      100                   105                   110  
Val Tyr Gly Pro Gly Lys Ala Val Pro Val Gly Gly Thr Thr Val Ser  
      115                   120                   125  
Leu Phe Gly Lys Tyr Gly Met Ser Arg Gln Gly Met His Asp Leu Lys  
      130                   135                   140  
Val Trp Pro Asn Val Glu Ala Asp Gly Ser Glu Pro Thr Asn Thr Pro  
      145                   150                   155                   160  
Gly Arg Thr Ser Ser Thr Leu Ser Glu Asp Gln Met Ser Arg Leu Ala  
      165                   170                   175  
Lys Leu Thr Lys Ala His Arg Gln Gly His Met Val Lys Val Asp Trp  
      180                   185                   190  
Leu Asp Arg Leu Thr Phe Arg Glu Ile Glu Met Ile Asn Glu Ser Val  
      195                   200                   205  
Lys Arg Ser Ser Asn Phe Met Tyr Leu Met Gly Gly Phe Arg Cys Val  
      210                   215                   220  
Lys Cys Asp Asp Lys Glu Tyr Gly Ile Val Tyr Tyr Glu Lys Asp Gly  
      225                   230                   235                   240  
Asp Glu Ser Ser Pro Ile Leu Thr Ser Phe Glu Leu Val Lys Val Pro  
      245                   250                   255  
Asp Pro Gln Met Ser Leu Glu Asn Leu Val Glu Ser Lys His His Asn  
      260                   265                   270  
Leu Pro Arg Ser Leu Arg Ser Gly Pro Ser Asp His Asp Leu Lys Pro  
      275                   280                   285  
Tyr Pro Ser Pro Arg Asp Gln Leu Lys Asn Ile Val Ser Tyr Pro Pro  
      290                   295                   300  
Ser Lys Pro Pro Thr Tyr Glu Glu Gln Asp Leu Val Trp Glu Phe Arg  
      305                   310                   315                   320  
Tyr Tyr Leu Thr Asn Gln Asp Lys Ala Leu Thr Lys Ile Leu Thr Ser  
      325                   330                   335  
Val Ile Trp Asp Leu Pro Gln Gly Ala Lys Gln Ala Leu Ala Leu Leu  
      340                   345                   350  
Gly Lys Trp Asn Pro Met Asp Val Glu Asp Ser Leu Glu Leu Ile Ser  
      355                   360                   365  
Ser His Tyr Thr Asn Pro Thr Val Arg Arg Tyr Ala Val Ala Arg Leu

370                    375                    380  
Arg Gln Ala Asp Asp Glu Asp Leu Leu Met Tyr Leu Ser Gln Leu Val  
385                    390                    395                    400  
  
Gln Ala Leu Lys Tyr Glu Asn Phe Asp Asp Ile Lys Asn Gly Leu Glu  
405                    410                    415  
  
Pro Thr Lys Lys Asp Ser Gln Ser Ser Val Ser Gly Asn Val Ser Asn  
420                    425                    430  
  
Ser Gly Ile Asn Ser Ala Glu Ile Asp Ser Ser Gln Ile Ile Thr Ser  
435                    440                    445  
  
Pro Leu Pro Ser Val Ser Ser Pro Pro Pro Ala Ser Lys Thr Lys Glu  
450                    455                    460  
  
Val Pro Asp Gly Glu Asn Leu Glu Gln Asp Leu Cys Thr Phe Leu Ile  
465                    470                    475                    480  
  
Ser Arg Ala Ser Lys Asn Ser Thr Leu Ala Asn Tyr Leu Tyr Trp Tyr  
485                    490                    495  
  
Val Ile Val Glu Cys Glu Asp Gln Asp Thr Gln Gln Arg Asp Pro Lys  
500                    505                    510  
  
Thr His Glu Met Tyr Leu Asn Val Met Arg Arg Phe Ser Gln Ala Leu  
515                    520                    525  
  
Leu Lys Gly Asp Lys Ser Val Arg Val Met Arg Ser Leu Leu Ala Ala  
530                    535                    540  
  
Gln Gln Thr Phe Val Asp Arg Leu Val His Leu Met Lys Ala Val Gln  
545                    550                    555                    560  
  
Arg Glu Ser Gly Asn Arg Lys Lys Asn Glu Arg Leu Gln Ala Leu  
565                    570                    575  
  
Leu Gly Asp Asn Glu Lys Met Asn Leu Ser Asp Val Glu Leu Ile Pro  
580                    585                    590  
  
Leu Pro Leu Glu Pro Gln Val Lys Ile Arg Gly Ile Ile Pro Glu Thr  
595                    600                    605  
  
Ala Thr Leu Phe Lys Ser Ala Leu Met Pro Ala Gln Leu Phe Phe Lys  
610                    615                    620  
  
Thr Glu Asp Gly Gly Lys Tyr Pro Val Ile Phe Lys His Gly Asp Asp  
625                    630                    635                    640  
  
Leu Arg Gln Asp Gln Leu Ile Leu Gln Ile Ile Ser Leu Met Asp Lys  
645                    650                    655  
  
Leu Leu Arg Lys Glu Asn Leu Asp Leu Lys Leu Thr Pro Tyr Lys Val  
660                    665                    670  
  
Leu Ala Thr Ser Thr Lys His Gly Phe Met Gln Phe Ile Gln Ser Val

675	680	685
Pro Val Ala Glu Val Leu Asp Thr Glu Gly Ser Ile Gln Asn Phe Phe		
690	695	700
Arg Lys Tyr Ala Pro Ser Glu Asn Gly Pro Asn Gly Ile Ser Ala Glu		
705	710	715
Val Met Asp Thr Tyr Val Lys Ser Cys Ala Gly Tyr Cys Val Ile Thr		
725	730	735
Tyr Ile Leu Gly Val Gly Asp Arg His Leu Asp Asn Leu Val Leu Thr		
740	745	750
Lys Thr Gly Lys Leu Phe His Ile Asp Phe Gly Tyr Ile Leu Gly Arg		
755	760	765
Asp Pro Lys Pro Leu Pro Pro Pro Met Lys Leu Asn Lys Glu Met Val		
770	775	780
Glu Gly Met Gly Gly Thr Gln Ser Glu Gln Tyr Gln Glu Phe Arg Lys		
785	790	795
Gln Cys Tyr Thr Ala Phe Leu His Leu Arg Arg Tyr Ser Asn Leu Ile		
805	810	815
Leu Asn Leu Phe Ser Leu Met Val Asp Pro Asn Ile Pro Asp Ile Ala		
820	825	830
Leu Glu Pro Asp Lys Thr Val Lys Lys Val Gln Asp Lys Phe Arg Leu		
835	840	845
Asp Leu Ser Asp Glu Glu Ala Val His Tyr Met Gln Ser Leu Ile Asp		
850	855	860
Glu Ser Val His Ala Leu Phe Ala Ala Val Val Glu Gln Ile His Lys		
865	870	875
Phe Ala Gln Tyr Trp Arg Lys		
885		
<210> 193		
<211> 887		
<212> PRT		
<213> Homo sapiens		
<400> 193		
Met Gly Glu Ala Glu Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp		
1	5	10
Ile Asn Val Gln Leu Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln		
20	25	30
Lys Ser Tyr Asn Ala Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly		
35	40	45

Leu Tyr Gln Glu Thr Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe  
50 55 60

Ala Glu Gly Lys Pro Ser Ala Leu Pro Val Arg Thr Ser Tyr Lys Ala  
65 70 75 80

Phe Ser Thr Arg Trp Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys  
85 90 95

Tyr Pro Asp Leu Pro Arg Asn Ala Gln Val Ala Leu Thr Ile Trp Asp  
100 105 110

Val Tyr Gly Pro Gly Lys Ala Val Pro Val Gly Gly Thr Thr Val Ser  
115 120 125

Leu Phe Gly Lys Tyr Gly Met Ser Arg Gln Gly Met His Asp Leu Lys  
130 135 140

Val Trp Pro Asn Val Glu Ala Asp Gly Ser Glu Pro Thr Asn Thr Pro  
145 150 155 160

Gly Arg Thr Ser Ser Thr Leu Ser Glu Asp Gln Met Ser Arg Leu Ala  
165 170 175

Lys Leu Thr Lys Ala His Arg Gln Gly His Met Val Lys Val Asp Trp  
180 185 190

Leu Asp Arg Leu Thr Phe Arg Glu Ile Glu Met Ile Asn Glu Ser Val  
195 200 205

Lys Arg Ser Ser Asn Phe Met Tyr Leu Met Gly Gly Phe Arg Cys Val  
210 215 220

Lys Cys Asp Asp Lys Glu Tyr Gly Ile Val Tyr Tyr Glu Lys Asp Gly  
225 230 235 240

Asp Glu Ser Ser Pro Ile Leu Thr Ser Phe Glu Leu Val Lys Val Pro  
245 250 255

Asp Pro Gln Met Ser Leu Glu Asn Leu Val Glu Ser Lys His His Asn  
260 265 270

Leu Pro Arg Ser Leu Arg Ser Gly Pro Ser Asp His Asp Leu Lys Pro  
275 280 285

Tyr Pro Ser Pro Arg Asp Gln Leu Lys Asn Ile Val Ser Tyr Pro Pro  
290 295 300

Ser Lys Pro Pro Thr Tyr Glu Glu Gln Asp Leu Val Trp Glu Phe Arg  
305 310 315 320

Tyr Tyr Leu Thr Asn Gln Asp Lys Ala Leu Thr Lys Ile Leu Thr Ser  
325 330 335

Val Ile Trp Asp Leu Pro Gln Gly Ala Lys Gln Ala Leu Ala Leu Leu  
340 345 350

Gly Lys Trp Asn Pro Met Asp Val Glu Asp Ser Leu Glu Leu Ile Ser  
355 360 365

Ser His Tyr Thr Asn Pro Thr Val Arg Arg Tyr Ala Val Ala Arg Leu  
370 375 380

Arg Gln Ala Asp Asp Glu Asp Leu Leu Met Tyr Leu Ser Gln Leu Val  
385 390 395 400

Gln Ala Leu Lys Tyr Glu Asn Phe Asp Asp Ile Lys Asn Gly Leu Glu  
405 410 415

Pro Thr Lys Lys Asp Ser Gln Ser Ser Val Ser Gly Asn Val Ser Asn  
420 425 430

Ser Gly Ile Asn Ser Ala Glu Ile Asp Ser Ser Gln Ile Ile Thr Ser  
435 440 445

Pro Leu Pro Ser Val Ser Ser Pro Pro Pro Ala Ser Lys Thr Lys Glu  
450 455 460

Val Pro Asp Gly Glu Asn Leu Glu Gln Asp Leu Cys Thr Phe Leu Ile  
465 470 475 480

Ser Arg Ala Ser Lys Asn Ser Thr Leu Ala Asn Tyr Leu Tyr Trp Tyr  
485 490 495

Val Ile Val Glu Cys Glu Asp Gln Asp Thr Gln Gln Arg Asp Pro Lys  
500 505 510

Thr His Glu Met Tyr Leu Asn Val Met Arg Arg Phe Ser Gln Ala Leu  
515 520 525

Leu Lys Gly Asp Lys Ser Val Arg Val Met Arg Ser Leu Leu Ala Ala  
530 535 540

Gln Gln Thr Phe Val Asp Arg Leu Val His Leu Met Lys Ala Val Gln  
545 550 555 560

Arg Glu Ser Gly Asn Arg Lys Lys Asn Glu Arg Leu Gln Ala Leu  
565 570 575

Leu Gly Asp Asn Glu Lys Met Asn Leu Ser Asp Val Glu Leu Ile Pro  
580 585 590

Leu Pro Leu Glu Pro Gln Val Lys Ile Arg Gly Ile Ile Pro Glu Thr  
595 600 605

Ala Thr Leu Phe Lys Ser Ala Leu Met Pro Ala Gln Leu Phe Phe Lys  
610 615 620

Thr Glu Asp Gly Gly Lys Tyr Pro Val Ile Phe Lys His Gly Asp Asp  
625 630 635 640

Leu Arg Gln Asp Gln Leu Ile Leu Gln Ile Ile Ser Leu Met Asp Lys  
645 650 655

Leu Leu Arg Lys Glu Asn Leu Asp Leu Lys Leu Thr Pro Tyr Lys Val  
660 665 670

Leu Ala Thr Ser Thr Lys His Gly Phe Met Gln Phe Ile Gln Ser Val  
675 680 685

Pro Val Ala Glu Val Leu Asp Thr Glu Gly Ser Ile Gln Asn Phe Phe  
690 695 700

Arg Lys Tyr Ala Pro Ser Glu Asn Gly Pro Asn Gly Ile Ser Ala Glu  
705 710 715 720

Val Met Asp Thr Tyr Val Lys Ser Cys Ala Gly Tyr Cys Val Ile Thr  
725 730 735

Tyr Ile Leu Gly Val Gly Asp Arg His Leu Asp Asn Leu Val Leu Thr  
740 745 750

Lys Thr Gly Lys Leu Phe His Ile Asp Phe Gly Tyr Ile Leu Gly Arg  
755 760 765

Asp Pro Lys Pro Leu Pro Pro Met Lys Leu Asn Lys Glu Met Val  
770 775 780

Glu Gly Met Gly Gly Thr Gln Ser Glu Gln Tyr Gln Glu Phe Arg Lys  
785 790 795 800

Gln Cys Tyr Thr Ala Phe Leu His Leu Arg Arg Tyr Ser Asn Leu Ile  
805 810 815

Leu Asn Leu Phe Ser Leu Met Val Asp Pro Asn Ile Pro Asp Ile Ala  
820 825 830

Leu Glu Pro Asp Lys Thr Val Lys Lys Val Gln Asp Lys Phe Arg Leu  
835 840 845

Asp Leu Ser Asp Glu Glu Ala Val His Tyr Met Gln Ser Leu Ile Asp  
850 855 860

Glu Ser Val His Ala Leu Phe Ala Ala Val Val Glu Gln Ile His Lys  
865 870 875 880

Phe Ala Gln Tyr Trp Arg Lys  
885

<210> 194

<211> 351

<212> PRT

<213> Homo sapiens

<400> 194

Met Gly Asn Ala Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val  
1 5 10 15

Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu  
20 25 30

Ser Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys  
35 40 45

Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys  
50 55 60

Glu Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val  
65 70 75 80

Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu  
85 90 95

Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys  
100 105 110

Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu  
115 120 125

Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala  
130 135 140

Arg Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser  
145 150 155 160

Leu Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp  
165 170 175

Gln Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val  
180 185 190

Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro  
195 200 205

Glu Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala  
210 215 220

Leu Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe  
225 230 235 240

Ala Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val  
245 250 255

Arg Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn  
260 265 270

Leu Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asn Gly  
275 280 285

Val Asn Asp Ile Lys Asn His Lys Trp Phe Ala Thr Thr Asp Trp Ile  
290 295 300

Ala Ile Tyr Gln Arg Lys Val Glu Ala Pro Phe Ile Pro Lys Phe Lys  
305 310 315 320

Gly Pro Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Glu Glu Ile  
325 330 335

Arg Val Ser Ile Asn Glu Lys Cys Gly Lys Glu Phe Ser Glu Phe  
340 345 350

<210> 195  
<211> 737  
<212> PRT  
<213> Homo sapiens

<400> 195

Met Val Val Phe Asn Gly Leu Leu Lys Ile Lys Ile Cys Glu Ala Val  
1 5 10 15

Ser Leu Lys Pro Thr Ala Trp Ser Leu Arg His Ala Val Gly Pro Arg  
20 25 30

Pro Gln Thr Phe Leu Leu Asp Pro Tyr Ile Ala Leu Asn Val Asp Asp  
35 40 45

Ser Arg Ile Gly Gln Thr Ala Thr Lys Gln Lys Thr Asn Ser Pro Ala  
50 55 60

Trp His Asp Glu Phe Val Thr Asp Val Cys Asn Gly Arg Lys Ile Glu  
65 70 75 80

Leu Ala Val Phe His Asp Ala Pro Ile Gly Tyr Asp Asp Phe Val Ala  
85 90 95

Asn Cys Thr Ile Gln Phe Glu Glu Leu Leu Gln Asn Gly Ser Arg His  
100 105 110

Phe Glu Asp Trp Ile Asp Leu Glu Pro Glu Gly Arg Val Tyr Val Ile  
115 120 125

Ile Asp Leu Ser Gly Ser Ser Gly Glu Ala Pro Lys Asp Asn Glu Glu  
130 135 140

Arg Val Phe Arg Glu Arg Met Arg Pro Arg Lys Arg Gln Gly Ala Val  
145 150 155 160

Arg Arg Arg Val His Gln Val Asn Gly His Lys Phe Met Ala Thr Tyr  
165 170 175

Leu Arg Gln Pro Thr Tyr Cys Ser His Cys Arg Asp Phe Ile Trp Gly  
180 185 190

Val Ile Gly Lys Gln Gly Tyr Gln Cys Gln Val Cys Thr Cys Val Val  
195 200 205

His Lys Arg Cys His Glu Leu Ile Ile Thr Lys Cys Ala Gly Leu Lys  
210 215 220

Lys Gln Glu Thr Pro Asp Gln Val Gly Ser Gln Arg Phe Ser Val Asn  
225 230 235 240

Met Pro His Lys Phe Gly Ile His Asn Tyr Lys Val Pro Thr Phe Cys

	245	250	255
Asp His Cys Gly Ser Leu Leu Trp Gly Leu Leu Arg Gln Gly Leu Gln			
260	265	270	
Cys Lys Val Cys Lys Met Asn Val His Arg Arg Cys Glu Thr Asn Val			
275	280	285	
Ala Pro Asn Cys Gly Val Asp Ala Arg Gly Ile Ala Lys Val Leu Ala			
290	295	300	
Asp Leu Gly Val Thr Pro Asp Lys Ile Thr Asn Ser Gly Gln Arg Arg			
305	310	315	320
Lys Lys Leu Ile Ala Gly Ala Glu Ser Pro Gln Pro Ala Ser Gly Ser			
325	330	335	
Ser Pro Ser Glu Glu Asp Arg Ser Lys Ser Ala Pro Thr Ser Pro Cys			
340	345	350	
Asp Gln Glu Ile Lys Glu Leu Glu Asn Asn Ile Arg Lys Ala Leu Ser			
355	360	365	
Phe Asp Asn Arg Gly Glu Glu His Arg Ala Ala Ser Ser Pro Asp Gly			
370	375	380	
Gln Leu Met Ser Pro Gly Glu Asn Gly Glu Val Arg Gln Gly Gln Ala			
385	390	395	400
Lys Arg Leu Gly Leu Asp Glu Phe Asn Phe Ile Lys Val Leu Gly Lys			
405	410	415	
Gly Ser Phe Gly Lys Val Met Leu Ala Glu Leu Lys Gly Lys Asp Glu			
420	425	430	
Val Tyr Ala Val Lys Val Leu Lys Lys Asp Val Ile Leu Gln Asp Asp			
435	440	445	
Asp Val Asp Cys Thr Met Thr Glu Lys Arg Ile Leu Ala Leu Ala Arg			
450	455	460	
Lys His Pro Tyr Leu Thr Gln Leu Tyr Cys Cys Phe Gln Thr Lys Asp			
465	470	475	480
Arg Leu Phe Phe Val Met Glu Tyr Val Asn Gly Gly Asp Leu Met Phe			
485	490	495	
Gln Ile Gln Arg Ser Arg Lys Phe Asp Glu Pro Arg Ser Arg Phe Tyr			
500	505	510	
Ala Ala Glu Val Thr Ser Ala Leu Met Phe Leu His Gln His Gly Val			
515	520	525	
Ile Tyr Arg Asp Leu Lys Leu Asp Asn Ile Leu Leu Asp Ala Glu Gly			
530	535	540	
His Cys Lys Leu Ala Asp Phe Gly Met Cys Lys Glu Gly Ile Leu Asn			

545                    550                    555                    560  
Gly Val Thr Thr Thr Phe Cys Gly Thr Pro Asp Tyr Ile Ala Pro  
565                    570                    575  
Glu Ile Leu Gln Glu Leu Glu Tyr Gly Pro Ser Val Asp Trp Trp Ala  
580                    585                    590  
Leu Gly Val Leu Met Tyr Glu Met Met Ala Gly Gln Pro Pro Phe Glu  
595                    600                    605  
Ala Asp Asn Glu Asp Asp Leu Phe Glu Ser Ile Leu His Asp Asp Val  
610                    615                    620  
Leu Tyr Pro Val Trp Leu Ser Lys Glu Ala Val Ser Ile Leu Lys Ala  
625                    630                    635                    640  
Phe Met Thr Lys Asn Pro His Lys Arg Leu Gly Cys Val Ala Ser Gln  
645                    650                    655  
Asn Gly Glu Asp Ala Ile Lys Gln His Pro Phe Phe Lys Glu Ile Asp  
660                    665                    670  
Trp Val Leu Leu Glu Gln Lys Lys Ile Lys Pro Pro Phe Lys Pro Arg  
675                    680                    685  
Ile Lys Thr Lys Arg Asp Val Asn Asn Phe Asp Gln Asp Phe Thr Arg  
690                    695                    700  
Glu Glu Pro Val Leu Thr Leu Val Asp Glu Ala Ile Val Lys Gln Ile  
705                    710                    715                    720  
Asn Gln Glu Glu Phe Lys Gly Phe Ser Tyr Phe Gly Glu Asp Leu Met  
725                    730                    735  
Pro  
  
<210> 196  
<211> 855  
<212> PRT  
<213> Homo sapiens  
  
<400> 196  
  
Met Ile Leu Ile Pro Arg Met Leu Leu Val Leu Phe Leu Leu Leu Pro  
1                    5                            10                    15  
Ile Leu Ser Ser Ala Lys Ala Gln Val Asn Pro Ala Ile Cys Arg Tyr  
20                    25                            30  
Pro Leu Gly Met Ser Gly Gly Gln Ile Pro Asp Glu Asp Ile Thr Ala  
35                    40                            45  
Ser Ser Gln Trp Ser Glu Ser Thr Ala Ala Lys Tyr Gly Arg Leu Asp  
50                    55                            60

Ser Glu Glu Gly Asp Gly Ala Trp Cys Pro Glu Ile Pro Val Glu Pro  
65 70 75 80

Asp Asp Leu Lys Glu Phe Leu Gln Ile Asp Leu His Thr Leu His Phe  
85 90 95

Ile Thr Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly His Gly Ile  
100 105 110

Glu Phe Ala Pro Met Tyr Lys Ile Asn Tyr Ser Arg Asp Gly Thr Arg  
115 120 125

Trp Ile Ser Trp Arg Asn Arg His Gly Lys Gln Val Leu Asp Gly Asn  
130 135 140

Ser Asn Pro Tyr Asp Ile Phe Leu Lys Asp Leu Glu Pro Pro Ile Val  
145 150 155 160

Ala Arg Phe Val Arg Phe Ile Pro Val Thr Asp His Ser Met Asn Val  
165 170 175

Cys Met Arg Val Glu Leu Tyr Gly Cys Val Trp Leu Asp Gly Leu Val  
180 185 190

Ser Tyr Asn Ala Pro Ala Gly Gln Gln Phe Val Leu Pro Gly Gly Ser  
195 200 205

Ile Ile Tyr Leu Asn Asp Ser Val Tyr Asp Gly Ala Val Gly Tyr Ser  
210 215 220

Met Thr Glu Gly Leu Gly Gln Leu Thr Asp Gly Val Ser Gly Leu Asp  
225 230 235 240

Asp Phe Thr Gln Thr His Glu Tyr His Val Trp Pro Gly Tyr Asp Tyr  
245 250 255

Val Gly Trp Arg Asn Glu Ser Ala Thr Asn Gly Tyr Ile Glu Ile Met  
260 265 270

Phe Glu Phe Asp Arg Ile Arg Asn Phe Thr Thr Met Lys Val His Cys  
275 280 285

Asn Asn Met Phe Ala Lys Gly Val Lys Ile Phe Lys Glu Val Gln Cys  
290 295 300

Tyr Phe Arg Ser Glu Ala Ser Glu Trp Glu Pro Asn Ala Ile Ser Phe  
305 310 315 320

Pro Leu Val Leu Asp Asp Val Asn Pro Ser Ala Arg Phe Val Thr Val  
325 330 335

Pro Leu His His Arg Met Ala Ser Ala Ile Lys Cys Gln Tyr His Phe  
340 345 350

Ala Asp Thr Trp Met Met Phe Ser Glu Ile Thr Phe Gln Ser Asp Ala  
355 360 365

Ala Met Tyr Asn Asn Ser Glu Ala Leu Pro Thr Ser Pro Met Ala Pro  
370 375 380

Thr Thr Tyr Asp Pro Met Leu Lys Val Asp Asp Ser Asn Thr Arg Ile  
385 390 395 400

Leu Ile Gly Cys Leu Val Ala Ile Ile Phe Ile Leu Leu Ala Ile Ile  
405 410 415

Val Ile Ile Leu Trp Arg Gln Phe Trp Gln Lys Met Leu Glu Lys Ala  
420 425 430

Ser Arg Arg Met Leu Asp Asp Glu Met Thr Val Ser Leu Ser Leu Pro  
435 440 445

Ser Asp Ser Ser Met Phe Asn Asn Asn Arg Ser Ser Ser Pro Ser Glu  
450 455 460

Gln Gly Ser Asn Ser Thr Tyr Asp Arg Ile Phe Pro Leu Arg Pro Asp  
465 470 475 480

Tyr Gln Glu Pro Ser Arg Leu Ile Arg Lys Leu Pro Glu Phe Ala Pro  
485 490 495

Gly Glu Glu Glu Ser Gly Cys Ser Gly Val Val Lys Pro Val Gln Pro  
500 505 510

Ser Gly Pro Glu Gly Val Pro His Tyr Ala Glu Ala Asp Ile Val Asn  
515 520 525

Leu Gln Gly Val Thr Gly Gly Asn Thr Tyr Ser Val Pro Ala Val Thr  
530 535 540

Met Asp Leu Leu Ser Gly Lys Asp Val Ala Val Glu Glu Phe Pro Arg  
545 550 555 560

Lys Leu Leu Thr Phe Lys Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu  
565 570 575

Val His Leu Cys Glu Val Glu Gly Met Glu Lys Phe Lys Asp Lys Asp  
580 585 590

Phe Ala Leu Asp Val Ser Ala Asn Gln Pro Val Leu Val Ala Val Lys  
595 600 605

Met Leu Arg Ala Asp Ala Asn Lys Asn Ala Arg Asn Asp Phe Leu Lys  
610 615 620

Glu Ile Lys Ile Met Ser Arg Leu Lys Asp Pro Asn Ile Ile His Leu  
625 630 635 640

Leu Ser Val Cys Ile Thr Asp Asp Pro Leu Cys Met Ile Thr Glu Tyr  
645 650 655

Met Glu Asn Gly Asp Leu Asn Gln Phe Leu Ser Arg His Glu Pro Pro  
660 665 670

Asn Ser Ser Ser Asp Val Arg Thr Val Ser Tyr Thr Asn Leu Lys  
675 680 685

Phe Met Ala Thr Gln Ile Ala Ser Gly Met Lys Tyr Leu Ser Ser Leu  
690 695 700

Asn Phe Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu Val Gly Lys  
705 710 715 720

Asn Tyr Thr Ile Lys Ile Ala Asp Phe Gly Met Ser Arg Asn Leu Tyr  
725 730 735

Ser Gly Asp Tyr Tyr Arg Ile Gln Gly Arg Ala Val Leu Pro Ile Arg  
740 745 750

Trp Met Ser Trp Glu Ser Ile Leu Leu Gly Lys Phe Thr Thr Ala Ser  
755 760 765

Asp Val Trp Ala Phe Gly Val Thr Leu Trp Glu Thr Phe Thr Phe Cys  
770 775 780

Gln Glu Gln Pro Tyr Ser Gln Leu Ser Asp Glu Gln Val Ile Glu Asn  
785 790 795 800

Thr Gly Glu Phe Phe Arg Asp Gln Gly Arg Gln Thr Tyr Leu Pro Gln  
805 810 815

Pro Ala Ile Cys Pro Asp Ser Val Tyr Lys Leu Met Leu Ser Cys Trp  
820 825 830

Arg Arg Asp Thr Lys Asn Arg Pro Ser Phe Gln Glu Ile His Leu Leu  
835 840 845

Leu Leu Gln Gln Gly Asp Glu  
850 855

<210> 197

<211> 966

<212> PRT

<213> Homo sapiens

<400> 197

Met Ala Asn Phe Gln Glu His Leu Ser Cys Ser Ser Ser Pro His Leu  
1 5 10 15

Pro Phe Ser Glu Ser Lys Thr Phe Asn Gly Leu Gln Asp Glu Leu Thr  
20 25 30

Ala Met Gly Asn His Pro Ser Pro Lys Leu Leu Glu Asp Gln Gln Glu  
35 40 45

Lys Gly Met Val Arg Thr Glu Leu Ile Glu Ser Val His Ser Pro Val  
50 55 60

Thr Thr Thr Val Leu Thr Ser Val Ser Glu Asp Ser Arg Asp Gln Phe  
65 70 75 80

Glu Asn Ser Val Leu Gln Leu Arg Glu His Asp Glu Ser Glu Thr Ala  
85 90 95

Val Ser Gln Gly Asn Ser Asn Thr Val Asp Gly Glu Ser Thr Ser Gly  
100 105 110

Thr Glu Asp Ile Lys Ile Gln Phe Ser Arg Ser Gly Ser Gly Ser Gly  
115 120 125

Gly Phe Leu Glu Gly Leu Phe Gly Cys Leu Arg Pro Val Trp Asn Ile  
130 135 140

Ile Gly Lys Ala Tyr Ser Thr Asp Tyr Lys Leu Gln Gln Gln Asp Thr  
145 150 155 160

Trp Glu Val Pro Phe Glu Glu Ile Ser Glu Leu Gln Trp Leu Gly Ser  
165 170 175

Gly Ala Gln Gly Ala Val Phe Leu Gly Lys Phe Arg Ala Glu Glu Val  
180 185 190

Ala Ile Lys Lys Val Arg Glu Gln Asn Glu Thr Asp Ile Lys His Leu  
195 200 205

Arg Lys Leu Lys His Pro Asn Ile Ile Ala Phe Lys Gly Val Cys Thr  
210 215 220

Gln Ala Pro Cys Tyr Cys Ile Ile Met Glu Tyr Cys Ala His Gly Gln  
225 230 235 240

Leu Tyr Glu Val Leu Arg Ala Gly Arg Lys Ile Thr Pro Arg Leu Leu  
245 250 255

Val Asp Trp Ser Thr Gly Ile Ala Ser Gly Met Asn Tyr Leu His Leu  
260 265 270

His Lys Ile Ile His Arg Asp Leu Lys Ser Pro Asn Val Leu Val Thr  
275 280 285

His Thr Asp Ala Val Lys Ile Ser Asp Phe Gly Thr Ser Lys Glu Leu  
290 295 300

Ser Asp Lys Ser Thr Lys Met Ser Phe Ala Gly Thr Val Ala Trp Met  
305 310 315 320

Ala Pro Glu Val Ile Arg Asn Glu Pro Val Ser Glu Lys Val Asp Ile  
325 330 335

Trp Ser Phe Gly Val Val Leu Trp Glu Leu Leu Thr Gly Glu Ile Pro  
340 345 350

Tyr Lys Asp Val Asp Ser Ser Ala Ile Ile Trp Gly Val Gly Ser Asn  
355 360 365

Ser Leu His Leu Pro Val Pro Ser Thr Cys Pro Asp Gly Phe Lys Ile  
370 375 380

Leu Met Lys Gln Thr Trp Gln Ser Lys Pro Arg Asn Arg Pro Ser Phe  
385 390 395 400

Arg Gln Thr Leu Met His Leu Asp Ile Ala Ser Ala Asp Val Leu Ala  
405 410 415

Thr Pro Gln Glu Thr Tyr Phe Lys Ser Gln Ala Glu Trp Arg Glu Glu  
420 425 430

Val Lys Lys His Phe Glu Lys Ile Lys Ser Glu Gly Thr Cys Ile His  
435 440 445

Arg Leu Asp Glu Glu Leu Ile Arg Arg Arg Glu Glu Leu Arg His  
450 455 460

Ala Leu Asp Ile Arg Glu His Tyr Glu Arg Lys Leu Glu Arg Ala Asn  
465 470 475 480

Asn Leu Tyr Met Glu Leu Ser Ala Ile Met Leu Gln Leu Glu Met Arg  
485 490 495

Glu Lys Glu Leu Ile Lys Arg Glu Gln Ala Val Glu Lys Lys Tyr Pro  
500 505 510

Gly Thr Tyr Lys Arg His Pro Val Arg Pro Ile Ile His Pro Asn Ala  
515 520 525

Met Glu Lys Leu Met Lys Arg Lys Gly Val Pro His Lys Ser Gly Met  
530 535 540

Gln Thr Lys Arg Pro Asp Leu Leu Arg Ser Glu Gly Ile Pro Thr Thr  
545 550 555 560

Glu Val Ala Pro Thr Ala Ser Pro Leu Ser Gly Ser Pro Lys Met Ser  
565 570 575

Thr Ser Ser Ser Lys Ser Arg Tyr Arg Ser Lys Pro Arg His Arg Arg  
580 585 590

Gly Asn Ser Arg Gly Ser His Ser Asp Phe Ala Ala Ile Leu Lys Asn  
595 600 605

Gln Pro Ala Gln Glu Asn Ser Pro His Pro Thr Tyr Leu His Gln Ala  
610 615 620

Gln Ser Gln Tyr Pro Ser Leu His His Asn Ser Leu Gln Gln Gln  
625 630 635 640

Tyr Gln Gln Pro Pro Pro Ala Met Ser Gln Ser His His Pro Arg Leu  
645 650 655

Asn Met His Gly Gln Asp Ile Ala Thr Cys Ala Asn Asn Leu Arg Tyr  
660 665 670

Phe Gly Pro Ala Ala Ala Leu Arg Ser Pro Leu Ser Asn His Ala Gln  
675 680 685

Arg Gln Leu Pro Gly Ser Ser Pro Asp Leu Ile Ser Thr Ala Met Ala  
690 695 700

Ala Asp Cys Trp Arg Ser Ser Glu Pro Asp Lys Gly Gln Ala Gly Pro  
705 710 715 720

Trp Gly Cys Cys Gln Ala Asp Ala Tyr Asp Pro Cys Leu Gln Cys Arg  
725 730 735

Pro Glu Gln Tyr Gly Ser Leu Asp Ile Pro Ser Ala Glu Pro Val Gly  
740 745 750

Arg Ser Pro Asp Leu Ser Lys Ser Pro Ala His Asn Pro Leu Leu Glu  
755 760 765

Asn Ala Gln Ser Ser Glu Lys Thr Glu Glu Asn Glu Phe Ser Gly Cys  
770 775 780

Arg Ser Glu Ser Ser Leu Gly Thr Ser His Leu Gly Thr Pro Pro Ala  
785 790 795 800

Leu Pro Arg Lys Thr Arg Pro Leu Gln Lys Ser Gly Asp Asp Ser Ser  
805 810 815

Glu Glu Glu Glu Gly Glu Val Asp Ser Glu Val Glu Phe Pro Arg Arg  
820 825 830

Gln Arg Pro His Arg Cys Ile Ser Ser Cys Gln Ser Tyr Ser Thr Phe  
835 840 845

Ser Ser Glu Asn Phe Ser Val Ser Asp Gly Glu Glu Gly Asn Thr Ser  
850 855 860

Asp His Ser Asn Ser Pro Asp Glu Leu Ala Asp Lys Leu Glu Asp Arg  
865 870 875 880

Leu Ala Glu Lys Leu Asp Asp Leu Leu Ser Gln Thr Pro Glu Ile Pro  
885 890 895

Ile Asp Ile Ser Ser His Ser Asp Gly Leu Ser Asp Lys Glu Cys Ala  
900 905 910

Val Arg Arg Val Lys Thr Gln Met Ser Leu Gly Lys Leu Cys Val Glu  
915 920 925

Glu Arg Gly Tyr Glu Asn Pro Met Gln Phe Glu Glu Ser Asp Cys Asp  
930 935 940

Ser Ser Asp Gly Glu Cys Ser Asp Ala Thr Val Arg Thr Asn Lys His  
945 950 955 960

Tyr Ser Ser Ala Thr Trp  
965

<210> 198

<211> 459

<212> PRT

<213> Homo sapiens

<400> 198

Arg Lys Glu Ala Val Leu Ser Ala Lys Met Lys His Pro Asn Ile Val  
1 5 10 15

Ala Phe Lys Glu Ser Phe Glu Ala Glu Gly His Leu Tyr Ile Val Met  
20 25 30

Glu Tyr Cys Asp Gly Gly Asp Leu Met Gln Lys Ile Lys Gln Gln Lys  
35 40 45

Gly Lys Leu Phe Pro Glu Asp Met Ile Leu Asn Trp Phe Thr Gln Met  
50 55 60

Cys Leu Gly Val Asn His Ile His Lys Lys Arg Val Leu His Arg Asp  
65 70 75 80

Ile Lys Ser Lys Asn Ile Phe Leu Thr Gln Asn Gly Lys Val Lys Leu  
85 90 95

Gly Asp Phe Gly Ser Ala Arg Leu Leu Ser Asn Pro Met Ala Phe Ala  
100 105 110

Cys Thr Tyr Val Gly Thr Pro Tyr Tyr Val Pro Pro Glu Ile Trp Glu  
115 120 125

Asn Leu Pro Tyr Asn Asn Lys Ser Asp Ile Trp Ser Leu Gly Cys Ile  
130 135 140

Leu Tyr Glu Leu Cys Thr Leu Lys His Pro Phe Gln Ala Asn Ser Trp  
145 150 155 160

Lys Asn Leu Ile Leu Lys Val Cys Gln Gly Cys Ile Ser Pro Leu Pro  
165 170 175

Ser His Tyr Ser Tyr Glu Leu Gln Phe Leu Val Lys Gln Met Phe Lys  
180 185 190

Arg Asn Pro Ser His Arg Pro Ser Ala Thr Thr Leu Leu Ser Arg Gly  
195 200 205

Ile Val Ala Arg Leu Val Gln Lys Cys Leu Pro Pro Glu Ile Ile Met  
210 215 220

Glu Tyr Gly Glu Glu Val Leu Glu Glu Ile Lys Asn Ser Lys His Asn  
225 230 235 240

Thr Pro Arg Lys Lys Thr Asn Pro Ser Arg Ile Arg Ile Ala Leu Gly  
245 250 255

Asn Glu Ala Ser Thr Val Gln Glu Glu Gln Asp Arg Lys Gly Ser  
260 265 270

His Thr Asp Leu Glu Ser Ile Asn Glu Asn Leu Val Glu Ser Ala Leu

275

280

285

Arg Arg Val Asn Arg Glu Glu Lys Gly Asn Lys Ser Val His Leu Arg  
290 295 300

Lys Ala Ser Ser Pro Asn Leu His Arg Arg Gln Trp Glu Lys Asn Val  
305 310 315 320

Pro Asn Thr Ala Leu Thr Ala Leu Glu Asn Ala Ser Ile Leu Thr Ser  
325 330 335

Ser Leu Thr Ala Glu Asp Asp Arg Gly Gly Ser Val Ile Lys Tyr Ser  
340 345 350

Lys Asn Thr Thr Arg Lys Gln Trp Leu Lys Glu Thr Pro Asp Thr Leu  
355 360 365

Leu Asn Ile Leu Lys Asn Ala Asp Leu Ser Leu Ala Phe Gln Thr Tyr  
370 375 380

Thr Ile Tyr Arg Pro Gly Ser Glu Gly Phe Leu Lys Gly Pro Leu Ser  
385 390 395 400

Glu Glu Thr Glu Ala Ser Asp Ser Val Asp Gly Gly His Asp Ser Val  
405 410 415

Ile Leu Asp Pro Glu Arg Leu Glu Pro Gly Leu Asp Glu Asp Thr  
420 425 430

Asp Phe Glu Glu Asp Asp Asn Pro Asp Trp Val Ser Glu Leu Lys  
435 440 445

Lys Arg Ala Gly Trp Gln Gly Leu Cys Asp Arg  
450 455

<210> 199

<211> 1124

<212> PRT

<213> Homo sapiens

<400> 199

Met Ala Pro Pro Ser Glu Glu Thr Pro Leu Ile Pro Gln Arg Ser Cys  
1 5 10 15

Ser Leu Leu Ser Thr Glu Ala Gly Ala Leu His Val Leu Leu Pro Ala  
20 25 30

Arg Ala Pro Gly Pro Pro Gln Arg Leu Ser Phe Ser Phe Gly Asp His  
35 40 45

Leu Ala Glu Asp Leu Cys Val Gln Ala Ala Lys Ala Ser Gly Ile Leu  
50 55 60

Pro Val Tyr His Ser Leu Phe Ala Leu Ala Thr Glu Asp Leu Ser Cys  
65 70 75 80

Trp Phe Pro Pro Ser His Ile Phe Ser Val Glu Asp Ala Ser Thr Gln  
85 90 95

Val Leu Leu Tyr Arg Ile Arg Phe Tyr Phe Pro Asn Trp Phe Gly Leu  
100 105 110

Glu Lys Cys His Arg Phe Gly Leu Arg Lys Asp Leu Ala Ser Ala Ile  
115 120 125

Leu Asp Leu Pro Val Leu Glu His Leu Phe Ala Gln His Arg Ser Asp  
130 135 140

Leu Val Ser Gly Arg Leu Pro Val Gly Leu Ser Leu Lys Glu Gln Gly  
145 150 155 160

Glu Cys Leu Ser Leu Ala Val Leu Asp Leu Ala Arg Met Ala Arg Glu  
165 170 175

Gln Ala Gln Arg Pro Gly Glu Leu Leu Lys Thr Val Ser Tyr Lys Ala  
180 185 190

Cys Leu Pro Pro Ser Leu Arg Asp Leu Ile Gln Gly Leu Ser Phe Val  
195 200 205

Thr Arg Arg Ala Ile Arg Arg Thr Val Arg Arg Ala Leu Pro Arg Val  
210 215 220

Ala Ala Cys Gln Ala Asp Arg His Ser Leu Met Ala Lys Tyr Ile Met  
225 230 235 240

Asp Leu Glu Arg Leu Asp Pro Ala Gly Ala Ala Glu Thr Phe His Val  
245 250 255

Gly Leu Pro Gly Ala Leu Gly Gly His Asp Gly Leu Gly Leu Leu Arg  
260 265 270

Val Ala Gly Asp Gly Gly Ile Ala Trp Thr Gln Gly Glu Gln Glu Val  
275 280 285

Leu Gln Pro Phe Cys Asp Phe Pro Glu Ile Val Asp Ile Ser Ile Lys  
290 295 300

Gln Ala Pro Arg Val Gly Pro Ala Gly Glu His Arg Leu Val Thr Val  
305 310 315 320

Thr Arg Thr Asp Asn Gln Ile Leu Glu Ala Glu Phe Pro Gly Leu Pro  
325 330 335

Glu Ala Leu Ser Phe Val Ala Leu Val Asp Gly Tyr Phe Arg Leu Thr  
340 345 350

Thr Asp Ser Gln His Phe Phe Cys Lys Glu Val Ala Pro Pro Arg Leu  
355 360 365

Leu Glu Glu Val Ala Glu Gln Cys His Gly Pro Ile Thr Leu Asp Phe  
370 375 380

Ala Ile Asn Lys Leu Lys Thr Gly Gly Ser Arg Pro Gly Ser Tyr Val  
385 390 395 400

Leu Arg Arg Ser Pro Gln Asp Phe Asp Ser Phe Leu Leu Thr Val Cys  
405 410 415

Val Gln Asn Pro Leu Gly Pro Asp Tyr Lys Gly Cys Leu Ile Arg Arg  
420 425 430

Ser Pro Thr Gly Thr Phe Leu Leu Val Gly Leu Ser Arg Pro His Ser  
435 440 445

Ser Leu Arg Glu Leu Leu Ala Thr Cys Trp Asp Gly Gly Leu His Val  
450 455 460

Asp Gly Val Ala Val Thr Leu Thr Ser Cys Cys Ile Pro Arg Pro Lys  
465 470 475 480

Glu Lys Ser Asn Leu Ile Val Val Gln Arg Gly His Ser Pro Pro Thr  
485 490 495

Ser Ser Leu Val Gln Pro Gln Ser Gln Tyr Gln Leu Ser Gln Met Thr  
500 505 510

Phe His Lys Ile Pro Ala Asp Ser Leu Glu Trp His Glu Asn Leu Gly  
515 520 525

His Gly Ser Phe Thr Lys Ile Tyr Arg Gly Cys Arg His Glu Val Val  
530 535 540

Asp Gly Glu Ala Arg Lys Thr Glu Val Leu Leu Lys Val Met Asp Ala  
545 550 555 560

Lys His Lys Asn Cys Met Glu Ser Phe Leu Glu Ala Ala Ser Leu Met  
565 570 575

Ser Gln Val Ser Tyr Arg His Leu Val Leu Leu His Gly Val Cys Met  
580 585 590

Ala Gly Asp Ser Thr Met Val Gln Glu Phe Val His Leu Gly Ala Ile  
595 600 605

Asp Met Tyr Leu Arg Lys Arg Gly His Leu Val Pro Ala Ser Trp Lys  
610 615 620

Leu Gln Val Val Lys Gln Leu Ala Tyr Ala Leu Asn Tyr Leu Glu Asp  
625 630 635 640

Lys Gly Leu Pro His Gly Asn Val Ser Ala Arg Lys Val Leu Leu Ala  
645 650 655

Arg Glu Gly Ala Asp Gly Ser Pro Pro Phe Ile Lys Leu Ser Asp Pro  
660 665 670

Gly Val Ser Pro Ala Val Leu Ser Leu Glu Met Leu Thr Asp Arg Ile  
675 680 685

Pro Trp Val Ala Pro Glu Cys Leu Arg Glu Ala Gln Thr Leu Ser Leu  
690 695 700

Glu Ala Asp Lys Trp Gly Phe Gly Ala Thr Val Trp Glu Val Phe Ser  
705 710 715 720

Gly Val Thr Met Pro Ile Ser Ala Leu Asp Pro Ala Lys Lys Leu Gln  
725 730 735

Phe Tyr Glu Asp Arg Gln Gln Leu Pro Ala Pro Lys Trp Thr Glu Leu  
740 745 750

Ala Leu Leu Ile Gln Gln Cys Met Ala Tyr Glu Pro Val Gln Arg Pro  
755 760 765

Ser Phe Arg Ala Val Ile Arg Asp Leu Asn Ser Leu Ile Ser Ser Asp  
770 775 780

Tyr Glu Leu Leu Ser Asp Pro Thr Pro Gly Ala Leu Ala Pro Arg Asp  
785 790 795 800

Gly Leu Trp Asn Gly Ala Gln Leu Tyr Ala Cys Gln Asp Pro Thr Ile  
805 810 815

Phe Glu Glu Arg His Leu Lys Tyr Ile Ser Gln Leu Gly Lys Gly Asn  
820 825 830

Phe Gly Ser Val Glu Leu Cys Arg Tyr Asp Pro Leu Ala His Asn Thr  
835 840 845

Gly Ala Leu Val Ala Val Lys Gln Leu Gln His Ser Gly Pro Asp Gln  
850 855 860

Gln Arg Asp Phe Gln Arg Glu Ile Gln Ile Leu Lys Ala Leu His Ser  
865 870 875 880

Asp Phe Ile Val Lys Tyr Arg Gly Val Ser Tyr Gly Pro Gly Arg Pro  
885 890 895

Glu Leu Arg Leu Val Met Glu Tyr Leu Pro Ser Gly Cys Leu Arg Asp  
900 905 910

Phe Leu Gln Arg His Arg Ala Arg Leu Asp Ala Ser Arg Leu Leu Leu  
915 920 925

Tyr Ser Ser Gln Ile Cys Lys Gly Met Glu Tyr Leu Gly Ser Arg Arg  
930 935 940

Cys Val His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Glu Ser Glu  
945 950 955 960

Ala His Val Lys Ile Ala Asp Phe Gly Leu Ala Lys Leu Leu Pro Leu  
965 970 975

Asp Lys Asp Tyr Tyr Val Val Arg Glu Pro Gly Gln Ser Pro Ile Phe  
980 985 990

Trp Tyr Ala Pro Glu Ser Leu Ser Asp Asn Ile Phe Ser Arg Gln Ser  
995 1000 1005

Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Leu Phe Thr Tyr  
1010 1015 1020

Cys Asp Lys Ser Cys Ser Pro Ser Ala Glu Phe Leu Arg Met Met  
1025 1030 1035

Gly Cys Glu Arg Asp Val Pro Ala Leu Cys Arg Leu Leu Glu Leu  
1040 1045 1050

Leu Glu Glu Gly Gln Arg Leu Pro Ala Pro Pro Ala Cys Pro Ala  
1055 1060 1065

Glu Val His Glu Leu Met Lys Leu Cys Trp Ala Pro Ser Pro Gln  
1070 1075 1080

Asp Arg Pro Ser Phe Ser Ala Leu Gly Pro Gln Leu Asp Met Leu  
1085 1090 1095

Trp Ser Gly Ser Arg Gly Cys Glu Thr His Ala Phe Thr Ala His  
1100 1105 1110

Pro Glu Gly Lys His His Ser Leu Ser Phe Ser  
1115 1120

<210> 200  
<211> 505  
<212> PRT  
<213> Homo sapiens

<400> 200

Met Ala Glu Ser Ala Gly Ala Ser Ser Phe Phe Pro Leu Val Val Leu  
1 5 10 15

Leu Leu Ala Gly Ser Gly Ser Gly Pro Arg Gly Val Gln Ala Leu  
20 25 30

Leu Cys Ala Cys Thr Ser Cys Leu Gln Ala Asn Tyr Thr Cys Glu Thr  
35 40 45

Asp Gly Ala Cys Met Val Ser Ile Phe Asn Leu Asp Gly Met Glu His  
50 55 60

His Val Arg Thr Cys Ile Pro Lys Val Glu Leu Val Pro Ala Gly Lys  
65 70 75 80

Pro Phe Tyr Cys Leu Ser Ser Glu Asp Leu Arg Asn Thr His Cys Cys  
85 90 95

Tyr Thr Asp Tyr Cys Asn Arg Ile Asp Leu Arg Val Pro Ser Gly His  
100 105 110

Leu Lys Glu Pro Glu His Pro Ser Met Trp Gly Pro Val Glu Leu Val  
115 120 125

Gly Ile Ile Ala Gly Pro Val Phe Leu Leu Phe Leu Ile Ile Ile Ile  
130 135 140

Val Phe Leu Val Ile Asn Tyr His Gln Arg Val Tyr His Asn Arg Gln  
145 150 155 160

Arg Leu Asp Met Glu Asp Pro Ser Cys Glu Met Cys Leu Ser Lys Asp  
165 170 175

Lys Thr Leu Gln Asp Leu Val Tyr Asp Leu Ser Thr Ser Gly Ser Gly  
180 185 190

Ser Gly Leu Pro Leu Phe Val Gln Arg Thr Val Ala Arg Thr Ile Val  
195 200 205

Leu Gln Glu Ile Ile Gly Lys Gly Arg Phe Gly Glu Val Trp Arg Gly  
210 215 220

Arg Trp Arg Gly Gly Asp Val Ala Val Lys Ile Phe Ser Ser Arg Glu  
225 230 235 240

Glu Arg Ser Trp Phe Arg Glu Ala Glu Ile Tyr Gln Thr Val Met Leu  
245 250 255

Arg His Glu Asn Ile Leu Gly Phe Ile Ala Ala Asp Asn Lys Asp Asn  
260 265 270

Gly Thr Trp Thr Gln Leu Trp Leu Val Ser Asp Tyr His Glu His Gly  
275 280 285

Ser Leu Phe Asp Tyr Leu Asn Arg Tyr Thr Val Thr Ile Glu Gly Met  
290 295 300

Ile Lys Leu Ala Leu Ser Ala Ala Ser Gly Leu Ala His Leu His Met  
305 310 315 320

Glu Ile Val Gly Thr Gln Gly Lys Pro Gly Ile Ala His Arg Asp Leu  
325 330 335

Lys Ser Lys Asn Ile Leu Val Lys Lys Asn Gly Met Cys Ala Ile Ala  
340 345 350

Asp Leu Gly Leu Ala Val Arg His Asp Ala Val Thr Asp Thr Ile Asp  
355 360 365

Ile Ala Pro Asn Gln Arg Val Gly Thr Lys Arg Tyr Met Ala Pro Glu  
370 375 380

Val Leu Asp Glu Thr Ile Asn Met Lys His Phe Asp Ser Phe Lys Cys  
385 390 395 400

Ala Asp Ile Tyr Ala Leu Gly Leu Val Tyr Trp Glu Ile Ala Arg Arg  
405 410 415

Cys Asn Ser Gly Gly Val His Glu Glu Tyr Gln Leu Pro Tyr Tyr Asp  
420 425 430

Leu Val Pro Ser Asp Pro Ser Ile Glu Glu Met Arg Lys Val Val Cys  
435 440 445

Asp Gln Lys Leu Arg Pro Asn Ile Pro Asn Trp Trp Gln Ser Tyr Glu  
450 455 460

Ala Leu Arg Val Met Gly Lys Met Met Arg Glu Cys Trp Tyr Ala Asn  
465 470 475 480

Gly Ala Ala Arg Leu Thr Ala Leu Arg Ile Lys Lys Thr Leu Ser Gln  
485 490 495

Leu Ser Val Gln Glu Asp Val Lys Ile  
500 505

<210> 201  
<211> 626  
<212> PRT  
<213> Homo sapiens

<400> 201

Met Asp Glu Gln Glu Ala Leu Asn Ser Ile Met Asn Asp Leu Val Ala  
1 5 10 15

Leu Gln Met Asn Arg Arg His Arg Met Pro Gly Tyr Glu Thr Met Lys  
20 25 30

Asn Lys Asp Thr Gly His Ser Asn Arg Gln Ser Asp Val Arg Ile Lys  
35 40 45

Phe Glu His Asn Gly Glu Arg Arg Ile Ile Ala Phe Ser Arg Pro Val  
50 55 60

Lys Tyr Glu Asp Val Glu His Lys Val Thr Thr Val Phe Gly Gln Pro  
65 70 75 80

Leu Asp Leu His Tyr Met Asn Asn Glu Leu Ser Ile Leu Leu Lys Asn  
85 90 95

Gln Asp Asp Leu Asp Lys Ala Ile Asp Ile Leu Asp Arg Ser Ser Ser  
100 105 110

Met Lys Ser Leu Arg Ile Leu Leu Ser Gln Asp Arg Asn His Asn  
115 120 125

Ser Ser Ser Pro His Ser Glu Val Ser Arg Gln Val Arg Ile Lys Ala  
130 135 140

Ser Gln Ser Ala Gly Asp Ile Asn Thr Ile Tyr Gln Pro Pro Glu Pro  
145 150 155 160

Arg Ser Arg His Leu Ser Val Ser Ser Gln Asn Pro Gly Arg Ser Ser  
165 170 175

Pro Pro Pro Gly Tyr Val Pro Glu Arg Gln Gln His Ile Ala Arg Gln

180                    185                    190

Gly Ser Tyr Thr Ser Ile Asn Ser Glu Gly Glu Phe Ile Pro Glu Thr  
195                    200                    205

Ser Glu Gln Cys Met Leu Asp Pro Leu Ser Ser Ala Glu Asn Ser Leu  
210                    215                    220

Ser Gly Ser Cys Gln Ser Leu Asp Arg Ser Ala Asp Ser Pro Ser Phe  
225                    230                    235                    240

Arg Lys Ser Arg Met Ser Arg Ala Gln Ser Phe Pro Asp Asn Arg Gln  
245                    250                    255

Glu Tyr Ser Asp Arg Glu Thr Gln Leu Tyr Asp Lys Gly Val Lys Gly  
260                    265                    270

Gly Thr Tyr Pro Arg Arg Tyr His Val Ser Val His His Lys Asp Tyr  
275                    280                    285

Ser Asp Gly Arg Arg Thr Phe Pro Arg Ile Arg Arg His Gln Gly Asn  
290                    295                    300

Leu Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu  
305                    310                    315                    320

Asn Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg  
325                    330                    335

Ser Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro  
340                    345                    350

Thr Lys Ser Pro Ser Ala Pro Ile Asn Trp Arg Arg Gly Lys Leu Leu  
355                    360                    365

Gly Gln Gly Ala Phe Gly Arg Val Tyr Leu Cys Tyr Asp Val Asp Thr  
370                    375                    380

Gly Arg Glu Leu Ala Ser Lys Gln Val Gln Phe Asp Pro Asp Ser Pro  
385                    390                    395                    400

Glu Thr Ser Lys Glu Val Ser Ala Leu Glu Cys Glu Ile Gln Leu Leu  
405                    410                    415

Lys Asn Leu Gln His Glu Arg Ile Val Gln Tyr Tyr Gly Cys Leu Arg  
420                    425                    430

Asp Arg Ala Glu Lys Thr Leu Thr Ile Phe Met Glu Tyr Met Pro Gly  
435                    440                    445

Gly Ser Val Lys Asp Gln Leu Lys Ala Tyr Gly Ala Leu Thr Glu Ser  
450                    455                    460

Val Thr Arg Lys Tyr Thr Arg Gln Ile Leu Glu Gly Met Ser Tyr Leu  
465                    470                    475                    480

His Ser Asn Met Ile Val His Arg Asp Ile Lys Gly Ala Asn Ile Leu

	485	490	495
Arg Asp Ser Ala Gly Asn Val Lys Leu Gly Asp Phe Gly Ala Ser Lys			
500	505		510
Arg Leu Gln Thr Ile Cys Met Ser Gly Thr Gly Met Arg Ser Val Thr			
515	520		525
Gly Thr Pro Tyr Trp Met Ser Pro Glu Val Ile Ser Gly Glu Gly Tyr			
530	535		540
Gly Arg Lys Ala Asp Val Trp Ser Leu Gly Cys Thr Val Val Glu Met			
545	550	555	560
Leu Thr Glu Lys Pro Pro Trp Ala Glu Tyr Glu Ala Met Ala Ala Ile			
565	570		575
Phe Lys Ile Ala Thr Gln Pro Thr Asn Pro Gln Leu Pro Ser His Ile			
580	585		590
Ser Glu His Gly Arg Asp Phe Leu Arg Arg Ile Phe Val Glu Ala Arg			
595	600		605
Gln Arg Pro Ser Ala Glu Glu Leu Leu Thr His His Phe Ala Gln Leu			
610	615		620
Met Tyr			
625			
<210> 202			
<211> 626			
<212> PRT			
<213> Homo sapiens			
<400> 202			
Met Asp Glu Gln Glu Ala Leu Asn Ser Ile Met Asn Asp Leu Val Ala			
1	5	10	15
Leu Gln Met Asn Arg Arg His Arg Met Pro Gly Tyr Glu Thr Met Lys			
20	25		30
Asn Lys Asp Thr Gly His Ser Asn Arg Gln Ser Asp Val Arg Ile Lys			
35	40		45
Phe Glu His Asn Gly Glu Arg Arg Ile Ile Ala Phe Ser Arg Pro Val			
50	55		60
Lys Tyr Glu Asp Val Glu His Lys Val Thr Thr Val Phe Gly Gln Pro			
65	70	75	80
Leu Asp Leu His Tyr Met Asn Asn Glu Leu Ser Ile Leu Leu Lys Asn			
85	90		95
Gln Asp Asp Leu Asp Lys Ala Ile Asp Ile Leu Asp Arg Ser Ser Ser			
100	105		110

Met Lys Ser Leu Arg Ile Leu Leu Leu Ser Gln Asp Arg Asn His Asn  
115 120 125

Ser Ser Ser Pro His Ser Glu Val Ser Arg Gln Val Arg Ile Lys Ala  
130 135 140

Ser Gln Ser Ala Gly Asp Ile Asn Thr Ile Tyr Gln Pro Pro Glu Pro  
145 150 155 160

Arg Ser Arg His Leu Ser Val Ser Ser Gln Asn Pro Gly Arg Ser Ser  
165 170 175

Pro Pro Pro Gly Tyr Val Pro Glu Arg Gln Gln His Ile Ala Arg Gln  
180 185 190

Gly Ser Tyr Thr Ser Ile Asn Ser Glu Gly Glu Phe Ile Pro Glu Thr  
195 200 205

Ser Glu Gln Cys Met Leu Asp Pro Leu Ser Ser Ala Glu Asn Ser Leu  
210 215 220

Ser Gly Ser Cys Gln Ser Leu Asp Arg Ser Ala Asp Ser Pro Ser Phe  
225 230 235 240

Arg Lys Ser Arg Met Ser Arg Ala Gln Ser Phe Pro Asp Asn Arg Gln  
245 250 255

Glu Tyr Ser Asp Arg Glu Thr Gln Leu Tyr Asp Lys Gly Val Lys Gly  
260 265 270

Gly Thr Tyr Pro Arg Arg Tyr His Val Ser Val His His Lys Asp Tyr  
275 280 285

Ser Asp Gly Arg Arg Thr Phe Pro Arg Ile Arg Arg His Gln Gly Asn  
290 295 300

Leu Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu  
305 310 315 320

Asn Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg  
325 330 335

Ser Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro  
340 345 350

Thr Lys Ser Pro Ser Ala Pro Ile Asn Trp Arg Arg Gly Lys Leu Leu  
355 360 365

Gly Gln Gly Ala Phe Gly Arg Val Tyr Leu Cys Tyr Asp Val Asp Thr  
370 375 380

Gly Arg Glu Leu Ala Ser Lys Gln Val Gln Phe Asp Pro Asp Ser Pro  
385 390 395 400

Glu Thr Ser Lys Glu Val Ser Ala Leu Glu Cys Glu Ile Gln Leu Leu  
405 410 415

Lys Asn Leu Gln His Glu Arg Ile Val Gln Tyr Tyr Gly Cys Leu Arg  
420 425 430

Asp Arg Ala Glu Lys Thr Leu Thr Ile Phe Met Glu Tyr Met Pro Gly  
435 440 445

Gly Ser Val Lys Asp Gln Leu Lys Ala Tyr Gly Ala Leu Thr Glu Ser  
450 455 460

Val Thr Arg Lys Tyr Thr Arg Gln Ile Leu Glu Gly Met Ser Tyr Leu  
465 470 475 480

His Ser Asn Met Ile Val His Arg Asp Ile Lys Gly Ala Asn Ile Leu  
485 490 495

Arg Asp Ser Ala Gly Asn Val Lys Leu Gly Asp Phe Gly Ala Ser Lys  
500 505 510

Arg Leu Gln Thr Ile Cys Met Ser Gly Thr Gly Met Arg Ser Val Thr  
515 520 525

Gly Thr Pro Tyr Trp Met Ser Pro Glu Val Ile Ser Gly Glu Gly Tyr  
530 535 540

Gly Arg Lys Ala Asp Val Trp Ser Leu Gly Cys Thr Val Val Glu Met  
545 550 555 560

Leu Thr Glu Lys Pro Pro Trp Ala Glu Tyr Glu Ala Met Ala Ala Ile  
565 570 575

Phe Lys Ile Ala Thr Gln Pro Thr Asn Pro Gln Leu Pro Ser His Ile  
580 585 590

Ser Glu His Gly Arg Asp Phe Leu Arg Arg Ile Phe Val Glu Ala Arg  
595 600 605

Gln Arg Pro Ser Ala Glu Glu Leu Leu Thr His His Phe Ala Gln Leu  
610 615 620

Met Tyr  
625

<210> 203  
<211> 372  
<212> PRT  
<213> Homo sapiens

<400> 203

Met Ala Lys Gln Tyr Asp Ser Val Glu Cys Pro Phe Cys Asp Glu Val  
1 5 10 15

Ser Lys Tyr Glu Lys Leu Ala Lys Ile Gly Gln Gly Thr Phe Gly Glu  
20 25 30

Val Phe Lys Ala Arg His Arg Lys Thr Gly Gln Lys Val Ala Leu Lys  
35 40 45

Lys Val Leu Met Glu Asn Glu Lys Glu Gly Phe Pro Ile Thr Ala Leu  
50 55 60

Arg Glu Ile Lys Ile Leu Gln Leu Leu Lys His Glu Asn Val Val Asn  
65 70 75 80

Leu Ile Glu Ile Cys Arg Thr Lys Ala Ser Pro Tyr Asn Arg Cys Lys  
85 90 95

Gly Ser Ile Tyr Leu Val Phe Asp Phe Cys Glu His Asp Leu Ala Gly  
100 105 110

Leu Leu Ser Asn Val Leu Val Lys Phe Thr Leu Ser Glu Ile Lys Arg  
115 120 125

Val Met Gln Met Leu Leu Asn Gly Leu Tyr Tyr Ile His Arg Asn Lys  
130 135 140

Ile Leu His Arg Asp Met Lys Ala Ala Asn Val Leu Ile Thr Arg Asp  
145 150 155 160

Gly Val Leu Lys Leu Ala Asp Phe Gly Leu Ala Arg Ala Phe Ser Leu  
165 170 175

Ala Lys Asn Ser Gln Pro Asn Arg Tyr Thr Asn Arg Val Val Thr Leu  
180 185 190

Trp Tyr Arg Pro Pro Glu Leu Leu Gly Glu Arg Asp Tyr Gly Pro  
195 200 205

Pro Ile Asp Leu Trp Gly Ala Gly Cys Ile Met Ala Glu Met Trp Thr  
210 215 220

Arg Ser Pro Ile Met Gln Gly Asn Thr Glu Gln His Gln Leu Ala Leu  
225 230 235 240

Ile Ser Gln Leu Cys Gly Ser Ile Thr Pro Glu Val Trp Pro Asn Val  
245 250 255

Asp Asn Tyr Glu Leu Tyr Glu Lys Leu Glu Leu Val Lys Gly Gln Lys  
260 265 270

Arg Lys Val Lys Asp Arg Leu Lys Ala Tyr Val Arg Asp Pro Tyr Ala  
275 280 285

Leu Asp Leu Ile Asp Lys Leu Leu Val Leu Asp Pro Ala Gln Arg Ile  
290 295 300

Asp Ser Asp Asp Ala Leu Asn His Asp Phe Phe Trp Ser Asp Pro Met  
305 310 315 320

Pro Ser Asp Leu Lys Gly Met Leu Ser Thr His Leu Thr Ser Met Phe  
325 330 335

Glu Tyr Leu Ala Pro Pro Arg Arg Lys Gly Ser Gln Ile Thr Gln Gln  
340 345 350

Ser Thr Asn Gln Ser Arg Asn Pro Ala Thr Thr Asn Gln Thr Glu Phe  
355 360 365

Glu Arg Val Phe  
370

<210> 204  
<211> 303  
<212> PRT  
<213> Homo sapiens

<400> 204

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Met Ala Thr Ser Arg Tyr Glu Pro Val Ala Glu Ile Gly Val Gly Ala
1           5                   10                  15

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Tyr Gly Thr Val Tyr Lys Ala Arg Asp Pro His Ser Gly His Phe Val  
20 25 30

Ala Leu Lys Ser Val Arg Val Pro Asn Gly Gly Gly Gly Gly Gly Gly Gly  
35 40 45

Leu Pro Ile Ser Thr Val Arg Glu Val Ala Leu Leu Arg Arg Leu Glu  
50 55 60

Ala Phe Glu His Pro Asn Val Val Arg Leu Met Asp Val Cys Ala Thr  
65 70 75 80

Ser Arg Thr Asp Arg Glu Ile Lys Val Thr Leu Val Phe Glu His Val  
85 90 95

Asp	Gln	Asp	Leu	Arg	Thr	Tyr	Leu	Asp	Lys	Ala	Pro	Pro	Pro	Gly	Leu
			100					105						110	

Pro Ala Glu Thr Ile Lys Asp Leu Met Arg Gln Phe Leu Arg Gly Leu  
115 120 125

Asp Phe Leu His Ala Asn Cys Ile Val His Arg Asp Leu Lys Pro Glu  
130 135 140

Asn	Ile	Leu	Val	Thr	Ser	Gly	Gly	Thr	Val	Lys	Leu	Ala	Asp	Phe	Gly
145					150					155					160

Leu Ala Arg Ile Tyr Ser Tyr Gln Met Ala Leu Thr Pro Val Val Val  
165 170 175

Thr Leu Trp Tyr Arg Ala Pro Glu Val Leu Leu Gln Ser Thr Tyr Ala  
180 185 190

Thr Pro Val Asp Met Trp Ser Val Gly Cys Ile Phe Ala Glu Met Phe  
                  195                 200                 205

Arg Arg Lys Pro Leu Phe Cys Gly Asn Ser Glu Ala Asp Gln Leu Gly  
210 215 220

Lys Ile Phe Asp Leu Ile Gly Leu Pro Pro Glu Asp Asp Trp Pro Arg

225	230	235	240
Asp Val Ser Leu Pro Arg Gly Ala Phe Pro Pro Arg Gly Pro			
245	250	255	
Val Gln Ser Val Val Pro Glu Met Glu Glu Ser Gly Ala Gln Leu Leu			
260	265	270	
Leu Glu Met Leu Thr Phe Asn Pro His Lys Arg Ile Ser Ala Phe Arg			
275	280	285	
Ala Leu Gln His Ser Tyr Leu His Lys Asp Glu Gly Asn Pro Glu			
290	295	300	
<210> 205			
<211> 303			
<212> PRT			
<213> Homo sapiens			
<400> 205			
Met Ala Thr Ser Arg Tyr Glu Pro Val Ala Glu Ile Gly Val Gly Ala			
1	5	10	15
Tyr Gly Thr Val Tyr Lys Ala Arg Asp Pro His Ser Gly His Phe Val			
20	25	30	
Ala Leu Lys Ser Val Arg Val Pro Asn Gly Gly Gly Gly Gly Gly			
35	40	45	
Leu Pro Ile Ser Thr Val Arg Glu Val Ala Leu Leu Arg Arg Leu Glu			
50	55	60	
Ala Phe Glu His Pro Asn Val Val Arg Leu Met Asp Val Cys Ala Thr			
65	70	75	80
Ser Arg Thr Asp Arg Glu Ile Lys Val Thr Leu Val Phe Glu His Val			
85	90	95	
Asp Gln Asp Leu Arg Thr Tyr Leu Asp Lys Ala Pro Pro Pro Gly Leu			
100	105	110	
Pro Ala Glu Thr Ile Lys Asp Leu Met Arg Gln Phe Leu Arg Gly Leu			
115	120	125	
Asp Phe Leu His Ala Asn Cys Ile Val His Arg Asp Leu Lys Pro Glu			
130	135	140	
Asn Ile Leu Val Thr Ser Gly Gly Thr Val Lys Leu Ala Asp Phe Gly			
145	150	155	160
Leu Ala Arg Ile Tyr Ser Tyr Gln Met Ala Leu Thr Pro Val Val Val			
165	170	175	
Thr Leu Trp Tyr Arg Ala Pro Glu Val Leu Leu Gln Ser Thr Tyr Ala			
180	185	190	

Thr Pro Val Asp Met Trp Ser Val Gly Cys Ile Phe Ala Glu Met Phe  
195 200 205

Arg Arg Lys Pro Leu Phe Cys Gly Asn Ser Glu Ala Asp Gln Leu Gly  
210 215 220

Lys Ile Phe Asp Leu Ile Gly Leu Pro Pro Glu Asp Asp Trp Pro Arg  
225 230 235 240

Asp Val Ser Leu Pro Arg Gly Ala Phe Pro Pro Arg Gly Pro Arg Pro  
245 250 255

Val Gln Ser Val Val Pro Glu Met Glu Glu Ser Gly Ala Gln Leu Leu  
260 265 270

Leu Glu Met Leu Thr Phe Asn Pro His Lys Arg Ile Ser Ala Phe Arg  
275 280 285

Ala Leu Gln His Ser Tyr Leu His Lys Asp Glu Gly Asn Pro Glu  
290 295 300

<210> 206  
<211> 590  
<212> PRT  
<213> Homo sapiens

<400> 206

Met Glu Leu Glu Asn Ile Val Ala Asn Thr Val Leu Leu Lys Ala Arg  
1 5 10 15

Glu Gly Gly Gly Lys Arg Lys Gly Lys Ser Lys Lys Trp Lys Glu  
20 25 30

Ile Leu Lys Phe Pro His Ile Ser Gln Cys Glu Asp Leu Arg Arg Thr  
35 40 45

Ile Asp Arg Asp Tyr Cys Ser Leu Cys Asp Lys Gln Pro Ile Gly Arg  
50 55 60

Leu Leu Phe Arg Gln Phe Cys Glu Thr Arg Pro Gly Leu Glu Cys Tyr  
65 70 75 80

Ile Gln Phe Leu Asp Ser Val Ala Glu Tyr Glu Val Thr Pro Asp Glu  
85 90 95

Lys Leu Gly Glu Lys Gly Lys Glu Ile Met Thr Lys Tyr Leu Thr Pro  
100 105 110

Lys Ser Pro Val Phe Ile Ala Gln Val Gly Gln Asp Leu Val Ser Gln  
115 120 125

Thr Glu Glu Lys Leu Leu Gln Lys Pro Cys Lys Glu Leu Phe Ser Ala  
130 135 140

Cys Ala Gln Ser Val His Glu Tyr Leu Arg Gly Glu Pro Phe His Glu  
145 150 155 160

Tyr Leu Asp Ser Met Phe Phe Asp Arg Phe Leu Gln Trp Lys Trp Leu  
165 170 175

Glu Arg Gln Pro Val Thr Lys Asn Thr Phe Arg Gln Tyr Arg Val Leu  
180 185 190

Gly Lys Gly Gly Phe Gly Glu Val Cys Ala Cys Gln Val Arg Ala Thr  
195 200 205

Gly Lys Met Tyr Ala Cys Lys Arg Leu Glu Lys Lys Arg Ile Lys Lys  
210 215 220

Arg Lys Gly Glu Ser Met Ala Leu Asn Glu Lys Gln Ile Leu Glu Lys  
225 230 235 240

Val Asn Ser Gln Phe Val Val Asn Leu Ala Tyr Ala Tyr Glu Thr Lys  
245 250 255

Asp Ala Leu Cys Leu Val Leu Thr Ile Met Asn Gly Gly Asp Leu Lys  
260 265 270

Phe His Ile Tyr Asn Met Gly Asn Pro Gly Phe Glu Glu Glu Arg Ala  
275 280 285

Leu Phe Tyr Ala Ala Glu Ile Leu Cys Gly Leu Glu Asp Leu His Arg  
290 295 300

Glu Asn Thr Val Tyr Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp  
305 310 315 320

Asp Tyr Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile  
325 330 335

Pro Glu Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met  
340 345 350

Ala Pro Glu Val Leu Asn Asn Gln Arg Tyr Gly Leu Ser Pro Asp Tyr  
355 360 365

Trp Gly Leu Gly Cys Leu Ile Tyr Glu Met Ile Glu Gly Gln Ser Pro  
370 375 380

Phe Arg Gly Arg Lys Glu Lys Val Lys Arg Glu Glu Val Asp Arg Arg  
385 390 395 400

Val Leu Glu Thr Glu Glu Val Tyr Ser His Lys Phe Ser Glu Glu Ala  
405 410 415

Lys Ser Ile Cys Lys Met Leu Leu Thr Lys Asp Ala Lys Gln Arg Leu  
420 425 430

Gly Cys Gln Glu Glu Gly Ala Ala Glu Val Lys Arg His Pro Phe Phe  
435 440 445

Arg Asn Met Asn Phe Lys Arg Leu Glu Ala Gly Met Leu Asp Pro Pro  
450 455 460

Phe Val Pro Asp Pro Arg Ala Val Tyr Cys Lys Asp Val Leu Asp Ile  
465 470 475 480

Glu Gln Phe Ser Thr Val Lys Gly Val Asn Leu Asp His Thr Asp Asp  
485 490 495

Asp Phe Tyr Ser Lys Phe Ser Thr Gly Ser Val Ser Ile Pro Trp Gln  
500 505 510

Asn Glu Met Ile Glu Thr Glu Cys Phe Lys Glu Leu Asn Val Phe Gly  
515 520 525

Pro Asn Gly Thr Leu Pro Pro Asp Leu Asn Arg Asn His Pro Pro Glu  
530 535 540

Pro Pro Lys Lys Gly Leu Leu Gln Arg Leu Phe Lys Arg Gln His Gln  
545 550 555 560

Asn Asn Ser Lys Ser Ser Pro Ser Ser Lys Thr Ser Phe Asn His His  
565 570 575

Ile Asn Ser Asn His Val Ser Ser Asn Ser Thr Gly Ser Ser  
580 585 590

<210> 207

<211> 590

<212> PRT

<213> Homo sapiens

<400> 207

Met Glu Leu Glu Asn Ile Val Ala Asn Thr Val Leu Leu Lys Ala Arg  
1 5 10 15

Glu Gly Gly Gly Lys Arg Lys Gly Lys Ser Lys Lys Trp Lys Glu  
20 25 30

Ile Leu Lys Phe Pro His Ile Ser Gln Cys Glu Asp Leu Arg Arg Thr  
35 40 45

Ile Asp Arg Asp Tyr Cys Ser Leu Cys Asp Lys Gln Pro Ile Gly Arg  
50 55 60

Leu Leu Phe Arg Gln Phe Cys Glu Thr Arg Pro Gly Leu Glu Cys Tyr  
65 70 75 80

Ile Gln Phe Leu Asp Ser Val Ala Glu Tyr Glu Val Thr Pro Asp Glu  
85 90 95

Lys Leu Gly Glu Lys Gly Lys Glu Ile Met Thr Lys Tyr Leu Thr Pro  
100 105 110

Lys Ser Pro Val Phe Ile Ala Gln Val Gly Gln Asp Leu Val Ser Gln  
115 120 125

Thr Glu Glu Lys Leu Leu Gln Lys Pro Cys Lys Glu Leu Phe Ser Ala

130                    135                    140  
Cys Ala Gln Ser Val His Glu Tyr Leu Arg Gly Glu Pro Phe His Glu  
145                    150                    155                    160  
Tyr Leu Asp Ser Met Phe Phe Asp Arg Phe Leu Gln Trp Lys Trp Leu  
165                    170                    175  
Glu Arg Gln Pro Val Thr Lys Asn Thr Phe Arg Gln Tyr Arg Val Leu  
180                    185                    190  
Gly Lys Gly Gly Phe Gly Glu Val Cys Ala Cys Gln Val Arg Ala Thr  
195                    200                    205  
Gly Lys Met Tyr Ala Cys Lys Arg Leu Glu Lys Lys Arg Ile Lys Lys  
210                    215                    220  
Arg Lys Gly Glu Ser Met Ala Leu Asn Glu Lys Gln Ile Leu Glu Lys  
225                    230                    235                    240  
Val Asn Ser Gln Phe Val Val Asn Leu Ala Tyr Ala Tyr Glu Thr Lys  
245                    250                    255  
Asp Ala Leu Cys Leu Val Leu Thr Ile Met Asn Gly Gly Asp Leu Lys  
260                    265                    270  
Phe His Ile Tyr Asn Met Gly Asn Pro Gly Phe Glu Glu Glu Arg Ala  
275                    280                    285  
Leu Phe Tyr Ala Ala Glu Ile Leu Cys Gly Leu Glu Asp Leu His Arg  
290                    295                    300  
Glu Asn Thr Val Tyr Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp  
305                    310                    315                    320  
Asp Tyr Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile  
325                    330                    335  
Pro Glu Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met  
340                    345                    350  
Ala Pro Glu Val Leu Asn Asn Gln Arg Tyr Gly Leu Ser Pro Asp Tyr  
355                    360                    365  
Trp Gly Leu Gly Cys Leu Ile Tyr Glu Met Ile Glu Gly Gln Ser Pro  
370                    375                    380  
Phe Arg Gly Arg Lys Glu Lys Val Lys Arg Glu Glu Val Asp Arg Arg  
385                    390                    395                    400  
Val Leu Glu Thr Glu Glu Val Tyr Ser His Lys Phe Ser Glu Glu Ala  
405                    410                    415  
Lys Ser Ile Cys Lys Lys Met Leu Leu Thr Lys Asp Ala Lys Gln Arg Leu  
420                    425                    430  
Gly Cys Gln Glu Glu Gly Ala Ala Glu Val Lys Arg His Pro Phe Phe

435

440

445

Arg Asn Met Asn Phe Lys Arg Leu Glu Ala Gly Met Leu Asp Pro Pro  
450 455 460

Phe Val Pro Asp Pro Arg Ala Val Tyr Cys Lys Asp Val Leu Asp Ile  
465 470 475 480

Glu Gln Phe Ser Thr Val Lys Gly Val Asn Leu Asp His Thr Asp Asp  
485 490 495

Asp Phe Tyr Ser Lys Phe Ser Thr Gly Ser Val Ser Ile Pro Trp Gln  
500 505 510

Asn Glu Met Ile Glu Thr Glu Cys Phe Lys Glu Leu Asn Val Phe Gly  
515 520 525

Pro Asn Gly Thr Leu Pro Pro Asp Leu Asn Arg Asn His Pro Pro Glu  
530 535 540

Pro Pro Lys Lys Gly Leu Leu Gln Arg Leu Phe Lys Arg Gln His Gln  
545 550 555 560

Asn Asn Ser Lys Ser Ser Pro Ser Ser Lys Thr Ser Phe Asn His His  
565 570 575

Ile Asn Ser Asn His Val Ser Ser Asn Ser Thr Gly Ser Ser  
580 585 590

<210> 208

<211> 590

<212> PRT

<213> Homo sapiens

<400> 208

Met Glu Leu Glu Asn Ile Val Ala Asn Thr Val Leu Leu Lys Ala Arg  
1 5 10 15

Glu Gly Gly Gly Lys Arg Lys Gly Lys Ser Lys Lys Trp Lys Glu  
20 25 30

Ile Leu Lys Phe Pro His Ile Ser Gln Cys Glu Asp Leu Arg Arg Thr  
35 40 45

Ile Asp Arg Asp Tyr Cys Ser Leu Cys Asp Lys Gln Pro Ile Gly Arg  
50 55 60

Leu Leu Phe Arg Gln Phe Cys Glu Thr Arg Pro Gly Leu Glu Cys Tyr  
65 70 75 80

Ile Gln Phe Leu Asp Ser Val Ala Glu Tyr Glu Val Thr Pro Asp Glu  
85 90 95

Lys Leu Gly Glu Lys Gly Lys Glu Ile Met Thr Lys Tyr Leu Thr Pro  
100 105 110

Lys Ser Pro Val Phe Ile Ala Gln Val Gly Gln Asp Leu Val Ser Gln  
115 120 125

Thr Glu Glu Lys Leu Leu Gln Lys Pro Cys Lys Glu Leu Phe Ser Ala  
130 135 140

Cys Ala Gln Ser Val His Glu Tyr Leu Arg Gly Glu Pro Phe His Glu  
145 150 155 160

Tyr Leu Asp Ser Met Phe Phe Asp Arg Phe Leu Gln Trp Lys Trp Leu  
165 170 175

Glu Arg Gln Pro Val Thr Lys Asn Thr Phe Arg Gln Tyr Arg Val Leu  
180 185 190

Gly Lys Gly Gly Phe Gly Glu Val Cys Ala Cys Gln Val Arg Ala Thr  
195 200 205

Gly Lys Met Tyr Ala Cys Lys Arg Leu Glu Lys Lys Arg Ile Lys Lys  
210 215 220

Arg Lys Gly Glu Ser Met Ala Leu Asn Glu Lys Gln Ile Leu Glu Lys  
225 230 235 240

Val Asn Ser Gln Phe Val Val Asn Leu Ala Tyr Ala Tyr Glu Thr Lys  
245 250 255

Asp Ala Leu Cys Leu Val Leu Thr Ile Met Asn Gly Gly Asp Leu Lys  
260 265 270

Phe His Ile Tyr Asn Met Gly Asn Pro Gly Phe Glu Glu Glu Arg Ala  
275 280 285

Leu Phe Tyr Ala Ala Glu Ile Leu Cys Gly Leu Glu Asp Leu His Arg  
290 295 300

Glu Asn Thr Val Tyr Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp  
305 310 315 320

Asp Tyr Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile  
325 330 335

Pro Glu Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met  
340 345 350

Ala Pro Glu Val Leu Asn Asn Gln Arg Tyr Gly Leu Ser Pro Asp Tyr  
355 360 365

Trp Gly Leu Gly Cys Leu Ile Tyr Glu Met Ile Glu Gly Gln Ser Pro  
370 375 380

Phe Arg Gly Arg Lys Glu Lys Val Lys Arg Glu Glu Val Asp Arg Arg  
385 390 395 400

Val Leu Glu Thr Glu Glu Val Tyr Ser His Lys Phe Ser Glu Glu Ala  
405 410 415

Lys Ser Ile Cys Lys Met Leu Leu Thr Lys Asp Ala Lys Gln Arg Leu  
420 425 430

Gly Cys Gln Glu Glu Gly Ala Ala Glu Val Lys Arg His Pro Phe Phe  
435 440 445

Arg Asn Met Asn Phe Lys Arg Leu Glu Ala Gly Met Leu Asp Pro Pro  
450 455 460

Phe Val Pro Asp Pro Arg Ala Val Tyr Cys Lys Asp Val Leu Asp Ile  
465 470 475 480

Glu Gln Phe Ser Thr Val Lys Gly Val Asn Leu Asp His Thr Asp Asp  
485 490 495

Asp Phe Tyr Ser Lys Phe Ser Thr Gly Ser Val Ser Ile Pro Trp Gln  
500 505 510

Asn Glu Met Ile Glu Thr Glu Cys Phe Lys Glu Leu Asn Val Phe Gly  
515 520 525

Pro Asn Gly Thr Leu Pro Pro Asp Leu Asn Arg Asn His Pro Pro Glu  
530 535 540

Pro Pro Lys Lys Gly Leu Leu Gln Arg Leu Phe Lys Arg Gln His Gln  
545 550 555 560

Asn Asn Ser Lys Ser Ser Pro Ser Ser Lys Thr Ser Phe Asn His His  
565 570 575

Ile Asn Ser Asn His Val Ser Ser Asn Ser Thr Gly Ser Ser  
580 585 590

<210> 209  
<211> 676  
<212> PRT  
<213> Homo sapiens

<400> 209

Met Ala Pro Phe Leu Arg Ile Ala Phe Asn Ser Tyr Glu Leu Gly Ser  
1 5 10 15

Leu Gln Ala Glu Asp Glu Ala Asn Gln Pro Phe Cys Ala Val Lys Met  
20 25 30

Lys Glu Ala Leu Ser Thr Glu Arg Gly Lys Thr Leu Val Gln Lys Lys  
35 40 45

Pro Thr Met Tyr Pro Glu Trp Lys Ser Thr Phe Asp Ala His Ile Tyr  
50 55 60

Glu Gly Arg Val Ile Gln Ile Val Leu Met Arg Ala Ala Glu Glu Pro  
65 70 75 80

Val Ser Glu Val Thr Val Gly Val Ser Val Leu Ala Glu Arg Cys Lys  
85 90 95

Lys Asn Asn Gly Lys Ala Glu Phe Trp Leu Asp Leu Gln Pro Gln Ala  
100 105 110

Lys Val Leu Met Ser Val Gln Tyr Phe Leu Glu Asp Val Asp Cys Lys  
115 120 125

Gln Ser Met Arg Ser Glu Asp Glu Ala Lys Phe Pro Thr Met Asn Arg  
130 135 140

Arg Gly Ala Ile Lys Gln Ala Lys Ile His Tyr Ile Lys Asn His Glu  
145 150 155 160

Phe Ile Ala Thr Phe Phe Gly Gln Pro Thr Phe Cys Ser Val Cys Lys  
165 170 175

Asp Phe Val Trp Gly Leu Asn Lys Gln Gly Tyr Lys Cys Arg Gln Cys  
180 185 190

Asn Ala Ala Ile His Lys Lys Cys Ile Asp Lys Ile Ile Gly Arg Cys  
195 200 205

Thr Gly Thr Ala Ala Asn Ser Arg Asp Thr Ile Phe Gln Lys Glu Arg  
210 215 220

Phe Asn Ile Asp Met Pro His Arg Phe Lys Val His Asn Tyr Met Ser  
225 230 235 240

Pro Thr Phe Cys Asp His Cys Gly Ser Leu Leu Trp Gly Leu Val Lys  
245 250 255

Gln Gly Leu Lys Cys Glu Asp Cys Gly Met Asn Val His His Lys Cys  
260 265 270

Arg Glu Lys Val Ala Asn Leu Cys Gly Ile Asn Gln Lys Leu Leu Ala  
275 280 285

Glu Ala Leu Asn Gln Val Thr Gln Arg Ala Ser Arg Arg Ser Asp Ser  
290 295 300

Ala Ser Ser Glu Pro Val Gly Ile Tyr Gln Gly Phe Glu Lys Lys Thr  
305 310 315 320

Gly Val Ala Gly Glu Asp Met Gln Asp Asn Ser Gly Thr Tyr Gly Lys  
325 330 335

Ile Trp Glu Gly Ser Ser Lys Cys Asn Ile Asn Asn Phe Ile Phe His  
340 345 350

Lys Val Leu Gly Lys Gly Ser Phe Gly Lys Val Leu Leu Gly Glu Leu  
355 360 365

Lys Gly Arg Gly Glu Tyr Ser Ala Ile Lys Ala Leu Lys Lys Asp Val  
370 375 380

Val Leu Ile Asp Asp Asp Val Glu Cys Thr Met Val Glu Lys Arg Val  
385 390 395 400

Leu Thr Leu Ala Ala Glu Asn Pro Phe Leu Thr His Leu Ile Cys Thr  
405 410 415

Phe Gln Thr Lys Asp His Leu Phe Phe Val Met Glu Phe Leu Asn Gly  
420 425 430

Gly Asp Leu Met Tyr His Ile Gln Asp Lys Gly Arg Phe Glu Leu Tyr  
435 440 445

Arg Ala Thr Phe Tyr Ala Ala Glu Ile Met Cys Gly Leu Gln Phe Leu  
450 455 460

His Ser Lys Gly Ile Ile Tyr Arg Asp Leu Lys Leu Asp Asn Val Leu  
465 470 475 480

Leu Asp Arg Asp Gly His Ile Lys Ile Ala Asp Phe Gly Met Cys Lys  
485 490 495

Glu Asn Ile Phe Gly Glu Ser Arg Ala Ser Thr Phe Cys Gly Thr Pro  
500 505 510

Asp Tyr Ile Ala Pro Glu Ile Leu Gln Gly Leu Lys Tyr Thr Phe Ser  
515 520 525

Val Asp Trp Trp Ser Phe Gly Val Leu Leu Tyr Glu Met Leu Ile Gly  
530 535 540

Gln Ser Pro Phe His Gly Asp Asp Glu Asp Glu Leu Phe Glu Ser Ile  
545 550 555 560

Arg Val Asp Thr Pro His Tyr Pro Arg Trp Ile Thr Lys Glu Ser Lys  
565 570 575

Asp Ile Leu Glu Lys Leu Phe Glu Arg Glu Pro Thr Lys Arg Leu Gly  
580 585 590

Met Thr Gly Asn Ile Lys Ile His Pro Phe Phe Lys Thr Ile Asn Trp  
595 600 605

Thr Leu Leu Glu Lys Arg Arg Leu Glu Pro Pro Phe Arg Pro Lys Val  
610 615 620

Lys Ser Pro Arg Asp Tyr Ser Asn Phe Asp Gln Glu Phe Leu Asn Glu  
625 630 635 640

Lys Ala Arg Leu Ser Tyr Ser Asp Lys Asn Leu Ile Asp Ser Met Asp  
645 650 655

Gln Ser Ala Phe Ala Gly Phe Ser Phe Val Asn Pro Lys Phe Glu His  
660 665 670

Leu Leu Glu Asp  
675

<210> 210  
<211> 406

<212> PRT

<213> Homo sapiens

<400> 210

Met Thr Leu Asp Val Gly Pro Glu Asp Glu Leu Pro Asp Trp Ala Ala  
1 5 10 15

Ala Lys Glu Phe Tyr Gln Lys Tyr Asp Pro Lys Asp Val Ile Gly Arg  
20 25 30

Gly Val Ser Ser Val Val Arg Arg Cys Val His Arg Ala Thr Gly His  
35 40 45

Glu Phe Ala Val Lys Ile Met Glu Val Thr Ala Glu Arg Leu Ser Pro  
50 55 60

Glu Gln Leu Glu Glu Val Arg Glu Ala Thr Arg Arg Glu Thr His Ile  
65 70 75 80

Leu Arg Gln Val Ala Gly His Pro His Ile Ile Thr Leu Ile Asp Ser  
85 90 95

Tyr Glu Ser Ser Ser Phe Met Phe Leu Val Phe Asp Leu Met Arg Lys  
100 105 110

Gly Glu Leu Phe Asp Tyr Leu Thr Glu Lys Val Ala Leu Ser Glu Lys  
115 120 125

Glu Thr Arg Ser Ile Met Arg Ser Leu Leu Glu Ala Val Ser Phe Leu  
130 135 140

His Ala Asn Asn Ile Val His Arg Asp Leu Lys Pro Glu Asn Ile Leu  
145 150 155 160

Leu Asp Asp Asn Met Gln Ile Arg Leu Ser Asp Phe Gly Phe Ser Cys  
165 170 175

His Leu Glu Pro Gly Glu Lys Leu Arg Glu Leu Cys Gly Thr Pro Gly  
180 185 190

Tyr Leu Ala Pro Glu Ile Leu Lys Cys Ser Met Asp Glu Thr His Pro  
195 200 205

Gly Tyr Gly Lys Glu Val Asp Leu Trp Ala Cys Gly Val Ile Leu Phe  
210 215 220

Thr Leu Leu Ala Gly Ser Pro Pro Phe Trp His Arg Arg Gln Ile Leu  
225 230 235 240

Met Leu Arg Met Ile Met Glu Gly Gln Tyr Gln Phe Ser Ser Pro Glu  
245 250 255

Trp Asp Asp Arg Ser Ser Thr Val Lys Asp Leu Ile Ser Arg Leu Leu  
260 265 270

Gln Val Asp Pro Glu Ala Arg Leu Thr Ala Glu Gln Ala Leu Gln His

275

280

285

Pro Phe Phe Glu Arg Cys Glu Gly Ser Gln Pro Trp Asn Leu Thr Pro  
290 295 300

Arg Gln Arg Phe Arg Val Ala Val Trp Thr Val Leu Ala Ala Gly Arg  
305 310 315 320

Val Ala Leu Ser Thr His Arg Val Arg Pro Leu Thr Lys Asn Ala Leu  
325 330 335

Leu Arg Asp Pro Tyr Ala Leu Arg Ser Val Arg His Leu Ile Asp Asn  
340 345 350

Cys Ala Phe Arg Leu Tyr His Trp Val Lys Lys Gly Glu Gln Gln  
355 360 365

Asn Arg Ala Ala Leu Phe Gln His Arg Pro Pro Gly Pro Phe Pro Ile  
370 375 380

Met Gly Pro Glu Glu Gly Asp Ser Ala Ala Ile Thr Glu Asp Glu  
385 390 395 400

Ala Val Leu Val Leu Gly  
405

<210> 211

<211> 1142

<212> PRT

<213> Homo sapiens

<400> 211

Met Ala Phe Cys Ala Lys Met Arg Ser Ser Lys Lys Thr Glu Val Asn  
1 5 10 15

Leu Glu Ala Pro Glu Pro Gly Val Glu Val Ile Phe Tyr Leu Ser Asp  
20 25 30

Arg Glu Pro Leu Arg Leu Gly Ser Gly Glu Tyr Thr Ala Glu Glu Leu  
35 40 45

Cys Ile Arg Ala Ala Gln Ala Cys Arg Ile Ser Pro Leu Cys His Asn  
50 55 60

Leu Phe Ala Leu Tyr Asp Glu Asn Thr Lys Leu Trp Tyr Ala Pro Asn  
65 70 75 80

Arg Thr Ile Thr Val Asp Asp Lys Met Ser Leu Arg Leu His Tyr Arg  
85 90 95

Met Arg Phe Tyr Phe Thr Asn Trp His Gly Thr Asn Asp Asn Glu Gln  
100 105 110

Ser Val Trp Arg His Ser Pro Lys Lys Gln Lys Asn Gly Tyr Glu Lys  
115 120 125

Lys Lys Ile Pro Asp Ala Thr Pro Leu Leu Asp Ala Ser Ser Leu Glu  
130 135 140

Tyr Leu Phe Ala Gln Gly Gln Tyr Asp Leu Val Lys Cys Leu Ala Pro  
145 150 155 160

Ile Arg Asp Pro Lys Thr Glu Gln Asp Gly His Asp Ile Glu Asn Glu  
165 170 175

Cys Leu Gly Met Ala Val Leu Ala Ile Ser His Tyr Ala Met Met Lys  
180 185 190

Lys Met Gln Leu Pro Glu Leu Pro Lys Asp Ile Ser Tyr Lys Arg Tyr  
195 200 205

Ile Pro Glu Thr Leu Asn Lys Ser Ile Arg Gln Arg Asn Leu Leu Thr  
210 215 220

Arg Met Arg Ile Asn Asn Val Phe Lys Asp Phe Leu Lys Glu Phe Asn  
225 230 235 240

Asn Lys Thr Ile Cys Asp Ser Ser Val Ser Thr His Asp Leu Lys Val  
245 250 255

Lys Tyr Leu Ala Thr Leu Glu Thr Leu Thr Lys His Tyr Gly Ala Glu  
260 265 270

Ile Phe Glu Thr Ser Met Leu Leu Ile Ser Ser Glu Asn Glu Met Asn  
275 280 285

Trp Phe His Ser Asn Asp Gly Gly Asn Val Leu Tyr Tyr Glu Val Met  
290 295 300

Val Thr Gly Asn Leu Gly Ile Gln Trp Arg His Lys Pro Asn Val Val  
305 310 315 320

Ser Val Glu Lys Glu Lys Asn Lys Leu Lys Arg Lys Lys Leu Glu Asn  
325 330 335

Lys Asp Lys Lys Asp Glu Glu Lys Asn Lys Ile Arg Glu Glu Trp Asn  
340 345 350

Asn Phe Ser Phe Phe Pro Glu Ile Thr His Ile Val Ile Lys Glu Ser  
355 360 365

Val Val Ser Ile Asn Lys Gln Asp Asn Lys Lys Met Glu Leu Lys Leu  
370 375 380

Ser Ser His Glu Glu Ala Leu Ser Phe Val Ser Leu Val Asp Gly Tyr  
385 390 395 400

Phe Arg Leu Thr Ala Asp Ala His His Tyr Leu Cys Thr Asp Val Ala  
405 410 415

Pro Pro Leu Ile Val His Asn Ile Gln Asn Gly Cys His Gly Pro Ile  
420 425 430

Cys Thr Glu Tyr Ala Ile Asn Lys Leu Arg Gln Glu Gly Ser Glu Glu  
435 440 445

Gly Met Tyr Val Leu Arg Trp Ser Cys Thr Asp Phe Asp Asn Ile Leu  
450 455 460

Met Thr Val Thr Cys Phe Glu Lys Ser Glu Gln Val Gln Gly Ala Gln  
465 470 475 480

Lys Gln Phe Lys Asn Phe Gln Ile Glu Val Gln Lys Gly Arg Tyr Ser  
485 490 495

Leu His Gly Ser Asp Arg Ser Phe Pro Ser Leu Gly Asp Leu Met Ser  
500 505 510

His Leu Lys Lys Gln Ile Leu Arg Thr Asp Asn Ile Ser Phe Met Leu  
515 520 525

Lys Arg Cys Cys Gln Pro Lys Pro Arg Glu Ile Ser Asn Leu Leu Val  
530 535 540

Ala Thr Lys Lys Ala Gln Glu Trp Gln Pro Val Tyr Pro Met Ser Gln  
545 550 555 560

Leu Ser Phe Asp Arg Ile Leu Lys Lys Asp Leu Val Gln Gly Glu His  
565 570 575

Leu Gly Arg Gly Thr Arg Thr His Ile Tyr Ser Gly Thr Leu Met Asp  
580 585 590

Tyr Lys Asp Asp Glu Gly Thr Ser Glu Glu Lys Lys Ile Lys Val Ile  
595 600 605

Leu Lys Val Leu Asp Pro Ser His Arg Asp Ile Ser Leu Ala Phe Phe  
610 615 620

Glu Ala Ala Ser Met Met Arg Gln Val Ser His Lys His Ile Val Tyr  
625 630 635 640

Leu Tyr Gly Val Cys Val Arg Asp Val Glu Asn Ile Met Val Glu Glu  
645 650 655

Phe Val Glu Gly Gly Pro Leu Asp Leu Phe Met His Arg Lys Ser Asp  
660 665 670

Val Leu Thr Thr Pro Trp Lys Phe Lys Val Ala Lys Gln Leu Ala Ser  
675 680 685

Ala Leu Ser Tyr Leu Glu Asp Lys Asp Leu Val His Gly Asn Val Cys  
690 695 700

Thr Lys Asn Leu Leu Ala Arg Glu Gly Ile Asp Ser Glu Cys Gly  
705 710 715 720

Pro Phe Ile Lys Leu Ser Asp Pro Gly Ile Pro Ile Thr Val Leu Ser  
725 730 735

Arg Gln Glu Cys Ile Glu Arg Ile Pro Trp Ile Ala Pro Glu Cys Val  
740 745 750

Glu Asp Ser Lys Asn Leu Ser Val Ala Ala Asp Lys Trp Ser Phe Gly  
755 760 765

Thr Thr Leu Trp Glu Ile Cys Tyr Asn Gly Glu Ile Pro Leu Lys Asp  
770 775 780

Lys Thr Leu Ile Glu Lys Glu Arg Phe Tyr Glu Ser Arg Cys Arg Pro  
785 790 795 800

Val Thr Pro Ser Cys Lys Glu Leu Ala Asp Leu Met Thr Arg Cys Met  
805 810 815

Asn Tyr Asp Pro Asn Gln Arg Pro Phe Phe Arg Ala Ile Met Arg Asp  
820 825 830

Ile Asn Lys Leu Glu Glu Gln Asn Pro Asp Ile Val Ser Arg Lys Lys  
835 840 845

Asn Gln Pro Thr Glu Val Asp Pro Thr His Phe Glu Lys Arg Phe Leu  
850 855 860

Lys Arg Ile Arg Asp Leu Gly Glu Gly His Phe Gly Lys Val Glu Leu  
865 870 875 880

Cys Arg Tyr Asp Pro Glu Asp Asn Thr Gly Glu Gln Val Ala Val Lys  
885 890 895

Ser Leu Lys Pro Glu Ser Gly Gly Asn His Ile Ala Asp Leu Lys Lys  
900 905 910

Glu Ile Glu Ile Leu Arg Asn Leu Tyr His Glu Asn Ile Val Lys Tyr  
915 920 925

Lys Gly Ile Cys Thr Glu Asp Gly Gly Asn Gly Ile Lys Leu Ile Met  
930 935 940

Glu Phe Leu Pro Ser Gly Ser Leu Lys Glu Tyr Leu Pro Lys Asn Lys  
945 950 955 960

Asn Lys Ile Asn Leu Lys Gln Gln Leu Lys Tyr Ala Val Gln Ile Cys  
965 970 975

Lys Gly Met Asp Tyr Leu Gly Ser Arg Gln Tyr Val His Arg Asp Leu  
980 985 990

Ala Ala Arg Asn Val Leu Val Glu Ser Glu His Gln Val Lys Ile Gly  
995 1000 1005

Asp Phe Gly Leu Thr Lys Ala Ile Glu Thr Asp Lys Glu Tyr Tyr  
1010 1015 1020

Thr Val Lys Asp Asp Arg Asp Ser Pro Val Phe Trp Tyr Ala Pro  
1025 1030 1035

Glu Cys Leu Met Gln Ser Lys Phe Tyr Ile Ala Ser Asp Val Trp  
1040 1045 1050

Ser Phe Gly Val Thr Leu His Glu Leu Leu Thr Tyr Cys Asp Ser  
1055 1060 1065

Asp Ser Ser Pro Met Ala Leu Phe Leu Lys Met Ile Gly Pro Thr  
1070 1075 1080

His Gly Gln Met Thr Val Thr Arg Leu Val Asn Thr Leu Lys Glu  
1085 1090 1095

Gly Lys Arg Leu Pro Cys Pro Pro Asn Cys Pro Asp Glu Val Tyr  
1100 1105 1110

Gln Leu Met Arg Lys Cys Trp Glu Phe Gln Pro Ser Asn Arg Thr  
1115 1120 1125

Ser Phe Gln Asn Leu Ile Glu Gly Phe Glu Ala Leu Leu Lys  
1130 1135 1140

<210> 212

<211> 537

<212> PRT

<213> Homo sapiens

<400> 212

Met Gly Cys Val Gln Cys Lys Asp Lys Glu Ala Thr Lys Leu Thr Glu  
1 5 10 15

Glu Arg Asp Gly Ser Leu Asn Gln Ser Ser Gly Tyr Arg Tyr Gly Thr  
20 25 30

Asp Pro Thr Pro Gln His Tyr Pro Ser Phe Gly Val Thr Ser Ile Pro  
35 40 45

Asn Tyr Asn Asn Phe His Ala Ala Gly Gly Gln Gly Leu Thr Val Phe  
50 55 60

Gly Gly Val Asn Ser Ser Ser His Thr Gly Thr Leu Arg Thr Arg Gly  
65 70 75 80

Gly Thr Gly Val Thr Leu Phe Val Ala Leu Tyr Asp Tyr Glu Ala Arg  
85 90 95

Thr Glu Asp Asp Leu Ser Phe His Lys Gly Glu Lys Phe Gln Ile Leu  
100 105 110

Asn Ser Ser Glu Gly Asp Trp Trp Glu Ala Arg Ser Leu Thr Thr Gly  
115 120 125

Glu Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Val Asp Ser Ile  
130 135 140

Gln Ala Glu Glu Trp Tyr Phe Gly Lys Leu Gly Arg Lys Asp Ala Glu  
145 150 155 160

Arg Gln Leu Leu Ser Phe Gly Asn Pro Arg Gly Thr Phe Leu Ile Arg  
165 170 175

Glu Ser Glu Thr Thr Lys Gly Ser Tyr Ser Leu Ser Ile Arg Asp Trp  
180 185 190

Asp Asp Met Lys Gly Asp His Val Lys His Tyr Lys Ile Arg Lys Leu  
195 200 205

Asp Asn Gly Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Glu Thr Leu  
210 215 220

Gln Gln Leu Val Gln His Tyr Ser Glu Arg Ala Ala Gly Leu Cys Cys  
225 230 235 240

Arg Leu Val Val Pro Cys His Lys Gly Met Pro Arg Leu Thr Asp Leu  
245 250 255

Ser Val Lys Thr Lys Asp Val Trp Glu Ile Pro Arg Glu Ser Leu Gln  
260 265 270

Leu Ile Lys Arg Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly  
275 280 285

Thr Trp Asn Gly Asn Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly  
290 295 300

Thr Met Ser Pro Glu Ser Phe Leu Glu Ala Gln Ile Met Lys Lys  
305 310 315 320

Leu Lys His Asp Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu  
325 330 335

Pro Ile Tyr Ile Val Thr Glu Tyr Met Asn Lys Gly Ser Leu Leu Asp  
340 345 350

Phe Leu Lys Asp Gly Glu Gly Arg Ala Leu Lys Leu Pro Asn Leu Val  
355 360 365

Asp Met Ala Ala Gln Val Ala Ala Gly Met Ala Tyr Ile Glu Arg Met  
370 375 380

Asn Tyr Ile His Arg Asp Leu Arg Ser Ala Asn Ile Leu Val Gly Asn  
385 390 395 400

Gly Leu Ile Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu  
405 410 415

Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp  
420 425 430

Thr Ala Pro Glu Arg Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp  
435 440 445

Val Trp Ser Phe Gly Ile Leu Leu Thr Glu Leu Val Thr Lys Gly Arg  
450 455 460

Val Pro Tyr Pro Gly Met Asn Asn Arg Glu Val Leu Glu Gln Val Glu  
465 470 475 480

Arg Gly Tyr Arg Met Pro Cys Pro Gln Asp Cys Pro Ile Ser Leu His  
485 490 495

Glu Leu Met Ile His Cys Trp Lys Lys Asp Pro Glu Glu Arg Pro Thr  
500 505 510

Phe Glu Tyr Leu Gln Ser Phe Leu Glu Asp Tyr Phe Thr Ala Thr Glu  
515 520 525

Pro Gln Tyr Gln Pro Gly Glu Asn Leu  
530 535

<210> 213  
<211> 537  
<212> PRT  
<213> Homo sapiens

<400> 213

Met Gly Cys Val Gln Cys Lys Asp Lys Glu Ala Thr Lys Leu Thr Glu  
1 5 10 15

Glu Arg Asp Gly Ser Leu Asn Gln Ser Ser Gly Tyr Arg Tyr Gly Thr  
20 25 30

Asp Pro Thr Pro Gln His Tyr Pro Ser Phe Gly Val Thr Ser Ile Pro  
35 40 45

Asn Tyr Asn Asn Phe His Ala Ala Gly Gly Gln Gly Leu Thr Val Phe  
50 55 60

Gly Gly Val Asn Ser Ser His Thr Gly Thr Leu Arg Thr Arg Gly  
65 70 75 80

Gly Thr Gly Val Thr Leu Phe Val Ala Leu Tyr Asp Tyr Glu Ala Arg  
85 90 95

Thr Glu Asp Asp Leu Ser Phe His Lys Gly Glu Lys Phe Gln Ile Leu  
100 105 110

Asn Ser Ser Glu Gly Asp Trp Trp Glu Ala Arg Ser Leu Thr Thr Gly  
115 120 125

Glu Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Val Asp Ser Ile  
130 135 140

Gln Ala Glu Glu Trp Tyr Phe Gly Lys Leu Gly Arg Lys Asp Ala Glu  
145 150 155 160

Arg Gln Leu Leu Ser Phe Gly Asn Pro Arg Gly Thr Phe Leu Ile Arg  
165 170 175

Glu Ser Glu Thr Thr Lys Gly Ser Tyr Ser Leu Ser Ile Arg Asp Trp

180                    185                    190

Asp Asp Met Lys Gly Asp His Val Lys His Tyr Lys Ile Arg Lys Leu  
195                    200                    205

Asp Asn Gly Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Glu Thr Leu  
210                    215                    220

Gln Gln Leu Val Gln His Tyr Ser Glu Arg Ala Ala Gly Leu Cys Cys  
225                    230                    235                    240

Arg Leu Val Val Pro Cys His Lys Gly Met Pro Arg Leu Thr Asp Leu  
245                    250                    255

Ser Val Lys Thr Lys Asp Val Trp Glu Ile Pro Arg Glu Ser Leu Gln  
260                    265                    270

Leu Ile Lys Arg Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly  
275                    280                    285

Thr Trp Asn Gly Asn Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly  
290                    295                    300

Thr Met Ser Pro Glu Ser Phe Leu Glu Ala Gln Ile Met Lys Lys  
305                    310                    315                    320

Leu Lys His Asp Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu  
325                    330                    335

Pro Ile Tyr Ile Val Thr Glu Tyr Met Asn Lys Gly Ser Leu Leu Asp  
340                    345                    350

Phe Leu Lys Asp Gly Glu Gly Arg Ala Leu Lys Leu Pro Asn Leu Val  
355                    360                    365

Asp Met Ala Ala Gln Val Ala Ala Gly Met Ala Tyr Ile Glu Arg Met  
370                    375                    380

Asn Tyr Ile His Arg Asp Leu Arg Ser Ala Asn Ile Leu Val Gly Asn  
385                    390                    395                    400

Gly Leu Ile Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu  
405                    410                    415

Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp  
420                    425                    430

Thr Ala Pro Glu Arg Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp  
435                    440                    445

Val Trp Ser Phe Gly Ile Leu Leu Thr Glu Leu Val Thr Lys Gly Arg  
450                    455                    460

Val Pro Tyr Pro Gly Met Asn Asn Arg Glu Val Leu Glu Gln Val Glu  
465                    470                    475                    480

Arg Gly Tyr Arg Met Pro Cys Pro Gln Asp Cys Pro Ile Ser Leu His

485	490	495
Glu Leu Met Ile His Cys Trp Lys Lys Asp Pro Glu Glu Arg Pro Thr		
500	505	510
Phe Glu Tyr Leu Gln Ser Phe Leu Glu Asp Tyr Phe Thr Ala Thr Glu		
515	520	525
Pro Gln Tyr Gln Pro Gly Glu Asn Leu		
530	535	
<210> 214		
<211> 603		
<212> PRT		
<213> Homo sapiens		
<400> 214		
Met Ser Ala Ala Val Thr Ala Gly Lys Leu Ala Arg Ala Pro Ala Asp		
1	5	10
Pro Gly Lys Ala Gly Val Pro Gly Val Ala Ala Pro Gly Ala Pro Ala		
20	25	30
Ala Ala Pro Pro Ala Lys Glu Ile Pro Glu Val Leu Val Asp Pro Arg		
35	40	45
Ser Arg Arg Arg Tyr Val Arg Gly Arg Phe Leu Gly Lys Gly Gly Phe		
50	55	60
Ala Lys Cys Phe Glu Ile Ser Asp Val Asp Thr Lys Glu Val Phe Ala		
65	70	75
80		
Gly Lys Ile Val Pro Lys Ser Leu Leu Lys Pro His Gln Arg Glu		
85	90	95
Lys Met Ser Met Glu Ile Ser Ile His Arg Ser Leu Ala His Gln His		
100	105	110
Val Val Gly Phe His Gly Phe Phe Glu Asp Asn Asp Phe Val Phe Val		
115	120	125
Val Leu Glu Leu Cys Arg Arg Ser Leu Leu Glu Leu His Lys Arg		
130	135	140
Arg Lys Ala Leu Thr Glu Pro Glu Ala Arg Tyr Tyr Leu Arg Gln Ile		
145	150	155
160		
Val Leu Gly Cys Gln Tyr Leu His Arg Asn Arg Val Ile His Arg Asp		
165	170	175
Leu Lys Leu Gly Asn Leu Phe Leu Asn Glu Asp Leu Glu Val Lys Ile		
180	185	190
Gly Asp Phe Gly Leu Ala Thr Lys Val Glu Tyr Asp Gly Glu Arg Lys		
195	200	205

Lys Thr Leu Cys Gly Thr Pro Asn Tyr Ile Ala Pro Glu Val Leu Ser  
210 215 220

Lys Lys Gly His Ser Phe Glu Val Asp Val Trp Ser Ile Gly Cys Ile  
225 230 235 240

Met Tyr Thr Leu Leu Val Gly Lys Pro Pro Phe Glu Thr Ser Cys Leu  
245 250 255

Lys Glu Thr Tyr Leu Arg Ile Lys Lys Asn Glu Tyr Ser Ile Pro Lys  
260 265 270

His Ile Asn Pro Val Ala Ala Ser Leu Ile Gln Lys Met Leu Gln Thr  
275 280 285

Asp Pro Thr Ala Arg Pro Thr Ile Asn Glu Leu Leu Gly Asp Glu Phe  
290 295 300

Phe Thr Ser Gly Tyr Ile Pro Ala Arg Leu Pro Ile Thr Cys Leu Thr  
305 310 315 320

Ile Pro Pro Arg Phe Ser Ile Ala Pro Ser Ser Leu Asp Pro Ser Asn  
325 330 335

Arg Lys Pro Leu Thr Val Leu Asn Lys Gly Leu Glu Asn Pro Leu Pro  
340 345 350

Glu Arg Pro Arg Glu Lys Glu Glu Pro Val Val Arg Glu Thr Gly Glu  
355 360 365

Val Val Asp Cys His Leu Ser Asp Met Leu Gln Gln Leu His Ser Val  
370 375 380

Asn Ala Ser Lys Pro Ser Glu Arg Gly Leu Val Arg Gln Glu Glu Ala  
385 390 395 400

Glu Asp Pro Ala Cys Ile Pro Ile Phe Trp Val Ser Lys Trp Val Asp  
405 410 415

Tyr Ser Asp Lys Tyr Gly Leu Gly Tyr Gln Leu Cys Asp Asn Ser Val  
420 425 430

Gly Val Leu Phe Asn Asp Ser Thr Arg Leu Ile Leu Tyr Asn Asp Gly  
435 440 445

Asp Ser Leu Gln Tyr Ile Glu Arg Asp Gly Thr Glu Ser Tyr Leu Thr  
450 455 460

Val Ser Ser His Pro Asn Ser Leu Met Lys Lys Ile Thr Leu Leu Lys  
465 470 475 480

Tyr Phe Arg Asn Tyr Met Ser Glu His Leu Leu Lys Ala Gly Gly Asn  
485 490 495

Ile Thr Pro Arg Gln Gly Asp Glu Leu Ala Arg Leu Pro Tyr Leu Arg  
500 505 510

Thr Trp Phe Arg Thr Arg Ser Ala Ile Ile Leu His Leu Ser Asn Gly  
515 520 525

Ser Val Gln Ile Asn Phe Phe Gln Asp His Thr Lys Leu Ile Leu Cys  
530 535 540

Pro Leu Met Ala Ala Val Thr Tyr Ile Asp Glu Lys Arg Asp Phe Arg  
545 550 555 560

Thr Tyr Arg Leu Ser Leu Leu Glu Glu Tyr Gly Cys Cys Lys Glu Leu  
565 570 575

Ala Ser Arg Leu Arg Tyr Ala Arg Thr Met Val Asp Lys Leu Leu Ser  
580 585 590

Ser Arg Ser Ala Ser Asn Arg Leu Lys Ala Ser  
595 600

<210> 215  
<211> 416  
<212> PRT  
<213> Homo sapiens

<400> 215

Met Glu Leu Arg Val Gly Asn Lys Tyr Arg Leu Gly Arg Lys Ile Gly  
1 5 10 15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Gly Ala Asn Ile Ala Ser Gly  
20 25 30

Glu Glu Val Ala Ile Lys Leu Glu Cys Val Lys Thr Lys His Pro Gln  
35 40 45

Leu His Ile Glu Ser Lys Phe Tyr Lys Met Met Gln Gly Gly Val Gly  
50 55 60

Ile Pro Ser Ile Lys Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met  
65 70 75 80

Val Met Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys  
85 90 95

Ser Arg Lys Phe Ser Leu Lys Thr Val Leu Leu Ala Asp Gln Met  
100 105 110

Ile Ser Arg Ile Glu Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp  
115 120 125

Val Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu  
130 135 140

Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg  
145 150 155 160

Thr His Gln His Ile Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr  
165 170 175

Ala Arg Tyr Ala Ser Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg  
180 185 190

Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu  
195 200 205

Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys  
210 215 220

Tyr Glu Arg Ile Ser Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu  
225 230 235 240

Cys Lys Gly Tyr Pro Ser Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg  
245 250 255

Ser Leu Arg Phe Asp Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu  
260 265 270

Phe Arg Asn Leu Phe His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe  
275 280 285

Asp Trp Asn Met Leu Lys Phe Gly Ala Ala Arg Asn Pro Glu Asp Val  
290 295 300

Asp Arg Glu Arg Arg Glu His Glu Arg Glu Arg Met Gly Gln Leu  
305 310 315 320

Arg Gly Ser Ala Thr Arg Ala Leu Pro Pro Gly Pro Pro Thr Gly Ala  
325 330 335

Thr Ala Asn Arg Leu Arg Ser Ala Ala Glu Pro Val Ala Ser Thr Pro  
340 345 350

Ala Ser Arg Ile Gln Pro Ala Gly Asn Thr Ser Pro Arg Ala Ile Ser  
355 360 365

Arg Val Asp Arg Glu Arg Lys Val Ser Met Arg Leu His Arg Gly Ala  
370 375 380

Pro Ala Asn Val Ser Ser Ser Asp Leu Thr Gly Arg Gln Glu Val Ser  
385 390 395 400

Arg Ile Pro Ala Ser Gln Thr Ser Val Pro Phe Asp His Leu Gly Lys  
405 410 415

<210> 216  
<211> 416  
<212> PRT  
<213> Homo sapiens

<400> 216

Met Glu Leu Arg Val Gly Asn Lys Tyr Arg Leu Gly Arg Lys Ile Gly  
1 5 10 15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Gly Ala Asn Ile Ala Ser Gly

20

25

30

Glu Glu Val Ala Ile Lys Leu Glu Cys Val Lys Thr Lys His Pro Gln  
 35                           40                           45

Leu His Ile Glu Ser Lys Phe Tyr Lys Met Met Gln Gly Gly Val Gly  
 50                           55                           60

Ile Pro Ser Ile Lys Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met  
 65                           70                           75                           80

Val Met Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys  
 85                           90                           95

Ser Arg Lys Phe Ser Leu Lys Thr Val Leu Leu Leu Ala Asp Gln Met  
 100                         105                           110

Ile Ser Arg Ile Glu Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp  
 115                         120                           125

Val Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu  
 130                         135                           140

Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg  
 145                         150                           155                           160

Thr His Gln His Ile Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr  
 165                         170                           175

Ala Arg Tyr Ala Ser Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg  
 180                         185                           190

Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu  
 195                         200                           205

Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys  
 210                         215                           220

Tyr Glu Arg Ile Ser Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu  
 225                         230                           235                           240

Cys Lys Gly Tyr Pro Ser Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg  
 245                         250                           255

Ser Leu Arg Phe Asp Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu  
 260                         265                           270

Phe Arg Asn Leu Phe His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe  
 275                         280                           285

Asp Trp Asn Met Leu Lys Phe Gly Ala Ala Arg Asn Pro Glu Asp Val  
 290                         295                           300

Asp Arg Glu Arg Arg Glu His Glu Arg Glu Glu Arg Met Gly Gln Leu  
 305                         310                           315                           320

Arg Gly Ser Ala Thr Arg Ala Leu Pro Pro Gly Pro Pro Thr Gly Ala

325                    330                    335

Thr Ala Asn Arg Leu Arg Ser Ala Ala Glu Pro Val Ala Ser Thr Pro  
340                    345                    350

Ala Ser Arg Ile Gln Pro Ala Gly Asn Thr Ser Pro Arg Ala Ile Ser  
355                    360                    365

Arg Val Asp Arg Glu Arg Lys Val Ser Met Arg Leu His Arg Gly Ala  
370                    375                    380

Pro Ala Asn Val Ser Ser Ser Asp Leu Thr Gly Arg Gln Glu Val Ser  
385                    390                    395                    400

Arg Ile Pro Ala Ser Gln Thr Ser Val Pro Phe Asp His Leu Gly Lys  
405                    410                    415

<210> 217  
<211> 416  
<212> PRT  
<213> Homo sapiens

<400> 217

Met Glu Leu Arg Val Gly Asn Lys Tyr Arg Leu Gly Arg Lys Ile Gly  
1                    5                    10                    15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Gly Ala Asn Ile Ala Ser Gly  
20                    25                    30

Glu Glu Val Ala Ile Lys Leu Glu Cys Val Lys Thr Lys His Pro Gln  
35                    40                    45

Leu His Ile Glu Ser Lys Phe Tyr Lys Met Met Gln Gly Val Gly  
50                    55                    60

Ile Pro Ser Ile Lys Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met  
65                    70                    75                    80

Val Met Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys  
85                    90                    95

Ser Arg Lys Phe Ser Leu Lys Thr Val Leu Leu Leu Ala Asp Gln Met  
100                    105                    110

Ile Ser Arg Ile Glu Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp  
115                    120                    125

Val Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu  
130                    135                    140

Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg  
145                    150                    155                    160

Thr His Gln His Ile Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr  
165                    170                    175

Ala Arg Tyr Ala Ser Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg  
180 185 190

Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu  
195 200 205

Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys  
210 215 220

Tyr Glu Arg Ile Ser Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu  
225 230 235 240

Cys Lys Gly Tyr Pro Ser Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg  
245 250 255

Ser Leu Arg Phe Asp Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu  
260 265 270

Phe Arg Asn Leu Phe His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe  
275 280 285

Asp Trp Asn Met Leu Lys Phe Gly Ala Ala Arg Asn Pro Glu Asp Val  
290 295 300

Asp Arg Glu Arg Arg Glu His Glu Arg Glu Arg Met Gly Gln Leu  
305 310 315 320

Arg Gly Ser Ala Thr Arg Ala Leu Pro Pro Gly Pro Pro Thr Gly Ala  
325 330 335

Thr Ala Asn Arg Leu Arg Ser Ala Ala Glu Pro Val Ala Ser Thr Pro  
340 345 350

Ala Ser Arg Ile Gln Pro Ala Gly Asn Thr Ser Pro Arg Ala Ile Ser  
355 360 365

Arg Val Asp Arg Glu Arg Lys Val Ser Met Arg Leu His Arg Gly Ala  
370 375 380

Pro Ala Asn Val Ser Ser Asp Leu Thr Gly Arg Gln Glu Val Ser  
385 390 395 400

Arg Ile Pro Ala Ser Gln Thr Ser Val Pro Phe Asp His Leu Gly Lys  
405 410 415

<210> 218  
<211> 418  
<212> PRT  
<213> Homo sapiens

<400> 218

Met Leu Pro Glu Asp Lys Glu Ala Asp Ser Leu Arg Gly Asn Ile Ser  
1 5 10 15

Val Lys Ala Val Lys Lys Glu Val Glu Lys Lys Leu Arg Cys Leu Leu  
20 25 30

Ala Asp Leu Pro Leu Pro Pro Glu Leu Pro Gly Gly Asp Asp Leu Ser  
35 40 45

Lys Ser Pro Glu Glu Lys Lys Thr Thr Thr Gln Leu His Ser Lys Arg  
50 55 60

Arg Pro Lys Ile Cys Gly Pro Arg Tyr Gly Glu Thr Lys Glu Lys Asp  
65 70 75 80

Ile Asp Trp Gly Lys Leu Cys Val Asp Lys Phe Asp Ile Ile Gly Ile  
85 90 95

Ile Gly Glu Gly Thr Tyr Gly Gln Val Tyr Lys Ala Arg Asp Lys Asp  
100 105 110

Thr Gly Glu Met Val Ala Leu Lys Lys Val Arg Leu Asp Asn Glu Lys  
115 120 125

Glu Gly Phe Pro Ile Thr Ala Ile Arg Glu Ile Lys Ile Leu Arg Gln  
130 135 140

Leu Thr His Gln Ser Ile Ile Asn Met Lys Glu Ile Val Thr Asp Lys  
145 150 155 160

Glu Asp Ala Leu Asp Phe Lys Lys Asp Lys Gly Ala Phe Tyr Leu Val  
165 170 175

Phe Glu Tyr Met Asp His Asp Leu Met Gly Leu Leu Glu Ser Gly Leu  
180 185 190

Val His Phe Tyr Glu Asn His Ile Lys Ser Phe Met Arg Gln Leu Met  
195 200 205

Glu Gly Leu Asp Tyr Cys His Lys Lys Asn Phe Leu His Arg Asp Ile  
210 215 220

Lys Cys Ser Asn Ile Leu Leu Asn Asn Arg Gly Gln Ile Lys Leu Ala  
225 230 235 240

Asp Phe Gly Leu Ala Arg Leu Tyr Ser Ser Glu Glu Ser Arg Pro Tyr  
245 250 255

Thr Asn Lys Val Ile Thr Leu Trp Tyr Arg Pro Pro Glu Leu Leu Leu  
260 265 270

Gly Glu Glu Arg Tyr Thr Pro Ala Ile Asp Val Trp Ser Cys Gly Cys  
275 280 285

Ile Leu Gly Glu Leu Phe Thr Lys Lys Pro Ile Phe Gln Ala Asn Gln  
290 295 300

Glu Leu Ala Gln Leu Glu Leu Ile Ser Arg Ile Cys Gly Ser Pro Cys  
305 310 315 320

Pro Ala Val Trp Pro Asp Val Ile Lys Leu Pro Tyr Phe Asn Thr Met  
325 330 335

Lys Pro Lys Lys Gln Tyr Arg Arg Lys Leu Arg Glu Glu Phe Val Phe  
340 345 350

Ile Pro Ala Ala Ala Leu Asp Leu Phe Asp Tyr Met Leu Ala Leu Asp  
355 360 365

Pro Ser Lys Arg Cys Thr Ala Glu Gln Ala Leu Gln Cys Glu Phe Leu  
370 375 380

Arg Asp Val Glu Pro Ser Lys Cys Leu His Gln Ile Ser Leu Tyr Gly  
385 390 395 400

Lys Ile Val Met Ser Tyr Gly Val Lys Ser Glu Glu Asp Arg Ser Arg  
405 410 415

Trp Ala

<210> 219

<211> 1711

<212> PRT

<213> Homo sapiens

<400> 219

Met Ser Ala Lys Val Arg Leu Lys Lys Leu Glu Gln Leu Leu Leu Asp  
1 5 10 15

Gly Pro Trp Arg Asn Glu Ser Ala Leu Ser Val Glu Thr Leu Leu Asp  
20 25 30

Val Leu Val Cys Leu Tyr Thr Glu Cys Ser His Ser Ala Leu Arg Arg  
35 40 45

Asp Lys Tyr Val Ala Glu Phe Leu Glu Trp Ala Lys Pro Phe Thr Gln  
50 55 60

Leu Val Lys Glu Met Gln Leu His Arg Glu Asp Phe Glu Ile Ile Lys  
65 70 75 80

Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Met Lys  
85 90 95

Asn Thr Glu Arg Ile Tyr Ala Met Lys Ile Leu Asn Lys Trp Glu Met  
100 105 110

Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu  
115 120 125

Val Asn Gly Asp Cys Gln Trp Ile Thr Ala Leu His Tyr Ala Phe Gln  
130 135 140

Asp Glu Asn His Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp  
145 150 155 160

Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Lys Leu Pro Glu Asp Met

	165	170	175
Ala Arg Phe Tyr Ile Gly Glu Met Val Leu Ala Ile Asp Ser Ile His			
180	185		190
Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Val Leu Leu			
195	200		205
Asp Val Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys			
210	215		220
Met Asn Asp Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr Pro			
225	230	235	240
Asp Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Met Gly			
245	250		255
Lys Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr			
260	265		270
Glu Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu			
275	280		285
Thr Tyr Gly Lys Ile Met Asn His Glu Glu Arg Phe Gln Phe Pro Ser			
290	295		300
His Val Thr Asp Val Ser Glu Glu Ala Lys Asp Leu Ile Gln Arg Leu			
305	310	315	320
Ile Cys Ser Arg Glu Arg Arg Leu Gly Gln Asn Gly Ile Glu Asp Phe			
325	330		335
Lys Lys His Ala Phe Phe Glu Gly Leu Asn Trp Glu Asn Ile Arg Asn			
340	345		350
Leu Glu Ala Pro Tyr Ile Pro Asp Val Ser Ser Pro Ser Asp Thr Ser			
355	360		365
Asn Phe Asp Val Asp Asp Val Leu Arg Asn Thr Glu Ile Leu Pro			
370	375		380
Pro Gly Ser His Thr Gly Phe Ser Gly Leu His Leu Pro Phe Ile Gly			
385	390	395	400
Phe Thr Phe Thr Thr Glu Ser Cys Phe Ser Asp Arg Gly Ser Leu Lys			
405	410		415
Ser Ile Met Gln Ser Asn Thr Leu Thr Lys Asp Glu Asp Val Gln Arg			
420	425		430
Asp Leu Glu His Ser Leu Gln Met Glu Ala Tyr Glu Arg Arg Ile Arg			
435	440		445
Arg Leu Glu Gln Glu Lys Leu Glu Leu Ser Arg Lys Leu Gln Glu Ser			
450	455		460
Thr Gln Thr Val Gln Ser Leu His Gly Ser Ser Arg Ala Leu Ser Asn			

465                    470                    475                    480  
Ser Asn Arg Asp Lys Glu Ile Lys Lys Leu Asn Glu Glu Ile Glu Arg  
        485                    490                    495  
  
Leu Lys Asn Lys Ile Ala Asp Ser Asn Arg Leu Glu Arg Gln Leu Glu  
        500                    505                    510  
  
Asp Thr Val Ala Leu Arg Gln Glu Arg Glu Asp Ser Thr Gln Arg Leu  
        515                    520                    525  
  
Arg Gly Leu Glu Lys Gln His Arg Val Val Arg Gln Glu Lys Glu Glu  
        530                    535                    540  
  
Leu His Lys Gln Leu Val Glu Ala Ser Glu Arg Leu Lys Ser Gln Ala  
        545                    550                    560  
  
Lys Glu Leu Lys Asp Ala His Gln Gln Arg Lys Leu Ala Leu Gln Glu  
        565                    570                    575  
  
Phe Ser Glu Leu Asn Glu Arg Met Ala Glu Leu Arg Ala Gln Lys Gln  
        580                    585                    590  
  
Lys Val Ser Arg Gln Leu Arg Asp Lys Glu Glu Glu Met Glu Val Ala  
        595                    600                    605  
  
Thr Gln Lys Val Asp Ala Met Arg Gln Glu Met Arg Arg Ala Glu Lys  
        610                    615                    620  
  
Leu Arg Lys Glu Leu Glu Ala Gln Leu Asp Asp Ala Val Ala Glu Ala  
        625                    630                    640  
  
Ser Lys Glu Arg Lys Leu Arg Glu His Ser Glu Asn Phe Cys Lys Gln  
        645                    650                    655  
  
Met Glu Ser Glu Leu Glu Ala Leu Lys Val Lys Gln Gly Arg Gly  
        660                    665                    670  
  
Ala Gly Ala Thr Leu Glu His Gln Gln Glu Ile Ser Lys Ile Lys Ser  
        675                    680                    685  
  
Glu Leu Glu Lys Lys Val Leu Phe Tyr Glu Glu Leu Val Arg Arg  
        690                    695                    700  
  
Glu Ala Ser His Val Leu Glu Val Lys Asn Val Lys Lys Glu Val His  
        705                    710                    720  
  
Asp Ser Glu Ser His Gln Leu Ala Leu Gln Lys Glu Ile Leu Met Leu  
        725                    730                    735  
  
Lys Asp Lys Leu Glu Lys Ser Lys Arg Glu Arg His Asn Glu Met Glu  
        740                    745                    750  
  
Glu Ala Val Gly Thr Ile Lys Asp Lys Tyr Glu Arg Glu Arg Ala Met  
        755                    760                    765  
  
Leu Phe Asp Glu Asn Lys Lys Leu Thr Ala Glu Asn Glu Lys Leu Cys

770                    775                    780  
Ser Phe Val Asp Lys Leu Thr Ala Gln Asn Arg Gln Leu Glu Asp Glu  
785                    790                    795                    800  
  
Leu Gln Asp Leu Ala Ala Lys Lys Glu Ser Val Ala His Trp Glu Ala  
805                    810                    815  
  
Gln Ile Ala Glu Ile Ile Gln Trp Val Ser Asp Glu Lys Asp Ala Arg  
820                    825                    830  
  
Gly Tyr Leu Gln Ala Leu Ala Ser Lys Met Thr Glu Glu Leu Glu Ala  
835                    840                    845  
  
Leu Arg Ser Ser Ser Leu Gly Ser Arg Thr Leu Asp Pro Leu Trp Lys  
850                    855                    860  
  
Val Arg Arg Ser Gln Lys Leu Asp Met Ser Ala Arg Leu Glu Leu Gln  
865                    870                    875                    880  
  
Ser Ala Leu Glu Ala Glu Ile Arg Ala Lys Gln Leu Val Gln Glu Glu  
885                    890                    895  
  
Leu Arg Lys Val Lys Asp Ala Asn Leu Thr Leu Glu Ser Lys Leu Lys  
900                    905                    910  
  
Asp Ser Glu Ala Lys Asn Arg Glu Leu Leu Glu Glu Met Glu Ile Leu  
915                    920                    925  
  
Lys Lys Lys Met Glu Glu Lys Phe Arg Ala Asp Thr Gly Leu Lys Leu  
930                    935                    940  
  
Pro Asp Phe Gln Asp Ser Ile Phe Glu Tyr Phe Asn Thr Ala Pro Leu  
945                    950                    955                    960  
  
Ala His Asp Leu Thr Phe Arg Thr Ser Ser Ala Ser Glu Gln Glu Thr  
965                    970                    975  
  
Gln Ala Pro Lys Pro Glu Ala Ser Pro Ser Met Ser Val Ala Ala Ser  
980                    985                    990  
  
Glu Gln Gln Glu Asp Met Ala Arg Pro Pro Gln Arg Pro Ser Ala Val  
995                    1000                    1005  
  
Pro Leu Pro Thr Thr Gln Ala Leu Val Leu Ala Gly Pro Lys Pro  
1010                    1015                    1020  
  
Lys Ala His Gln Phe Ser Ile Lys Ser Phe Ser Ser Pro Thr Gln  
1025                    1030                    1035  
  
Cys Ser His Cys Thr Ser Leu Met Val Gly Leu Ile Arg Gln Gly  
1040                    1045                    1050  
  
Tyr Ala Cys Glu Val Cys Ser Phe Ala Cys His Val Ser Cys Lys  
1055                    1060                    1065  
  
Asp Gly Ala Pro Gln Val Cys Pro Ile Pro Pro Glu Gln Ser Lys

1070                    1075                    1080  
Arg Pro Leu Gly Val Asp Val Gln Arg Gly Ile Gly Thr Ala Tyr  
1085                    1090                    1095  
  
Lys Gly His Val Lys Val Pro Lys Pro Thr Gly Val Lys Lys Gly  
1100                    1105                    1110  
  
Trp Gln Arg Ala Tyr Ala Val Val Cys Glu Cys Lys Leu Phe Leu  
1115                    1120                    1125  
  
Tyr Asp Leu Pro Glu Gly Lys Ser Thr Gln Pro Gly Val Ile Ala  
1130                    1135                    1140  
  
Ser Gln Val Leu Asp Leu Arg Asp Asp Glu Phe Ser Val Ser Ser  
1145                    1150                    1155  
  
Val Leu Ala Ser Asp Val Ile His Ala Thr Arg Arg Asp Ile Pro  
1160                    1165                    1170  
  
Cys Ile Phe Arg Val Thr Ala Ser Leu Leu Gly Ala Pro Ser Lys  
1175                    1180                    1185  
  
Thr Ser Ser Leu Leu Ile Leu Thr Glu Asn Glu Asn Glu Lys Arg  
1190                    1195                    1200  
  
Lys Trp Val Gly Ile Leu Glu Gly Leu Gln Ser Ile Leu His Lys  
1205                    1210                    1215  
  
Asn Arg Leu Arg Asn Gln Val Val His Val Pro Leu Glu Ala Tyr  
1220                    1225                    1230  
  
Asp Ser Ser Leu Pro Leu Ile Lys Ala Ile Leu Thr Ala Ala Ile  
1235                    1240                    1245  
  
Val Asp Ala Asp Arg Ile Ala Val Gly Leu Glu Glu Gly Leu Tyr  
1250                    1255                    1260  
  
Val Ile Glu Val Thr Arg Asp Val Ile Val Arg Ala Ala Asp Cys  
1265                    1270                    1275  
  
Lys Lys Val His Gln Ile Glu Leu Ala Pro Arg Glu Lys Ile Val  
1280                    1285                    1290  
  
Ile Leu Leu Cys Gly Arg Asn His His Val His Leu Tyr Pro Trp  
1295                    1300                    1305  
  
Ser Ser Leu Asp Gly Ala Glu Gly Ser Phe Asp Ile Lys Leu Pro  
1310                    1315                    1320  
  
Glu Thr Lys Gly Cys Gln Leu Met Ala Thr Ala Thr Leu Lys Arg  
1325                    1330                    1335  
  
Asn Ser Gly Thr Cys Leu Phe Val Ala Val Lys Arg Leu Ile Leu  
1340                    1345                    1350  
  
Cys Tyr Glu Ile Gln Arg Thr Lys Pro Phe His Arg Lys Phe Asn

1355                    1360                    1365  
Glu Ile Val Ala Pro Gly Ser Val Gln Cys Leu Ala Val Leu Arg  
1370                    1375                    1380  
  
Asp Arg Leu Cys Val Gly Tyr Pro Ser Gly Phe Cys Leu Leu Ser  
1385                    1390                    1395  
  
Ile Gln Gly Asp Gly Gln Pro Leu Asn Leu Val Asn Pro Asn Asp  
1400                    1405                    1410  
  
Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser Phe Asp Ala Leu Cys  
1415                    1420                    1425  
  
Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu Cys Phe Ser His  
1430                    1435                    1440  
  
Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala Arg Ala Gln  
1445                    1450                    1455  
  
Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys Ser Pro  
1460                    1465                    1470  
  
Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe Asp  
1475                    1480                    1485  
  
Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile  
1490                    1495                    1500  
  
Arg Pro Leu Asn Ser Glu Gly Thr Leu Asn Leu Leu Asn Cys Glu  
1505                    1510                    1515  
  
Pro Pro Arg Leu Ile Tyr Phe Lys Ser Lys Phe Ser Gly Ala Val  
1520                    1525                    1530  
  
Leu Asn Val Pro Asp Thr Ser Asp Asn Ser Lys Lys Gln Met Leu  
1535                    1540                    1545  
  
Arg Thr Arg Ser Lys Arg Arg Phe Val Phe Lys Val Pro Glu Glu  
1550                    1555                    1560  
  
Glu Arg Leu Gln Gln Arg Arg Glu Met Leu Arg Asp Pro Glu Leu  
1565                    1570                    1575  
  
Arg Ser Lys Met Ile Ser Asn Pro Thr Asn Phe Asn His Val Ala  
1580                    1585                    1590  
  
His Met Gly Pro Gly Asp Gly Met Gln Val Leu Met Asp Leu Pro  
1595                    1600                    1605  
  
Leu Ser Ala Val Pro Pro Ser Gln Glu Glu Arg Pro Gly Pro Ala  
1610                    1615                    1620  
  
Pro Thr Asn Leu Ala Arg Gln Pro Pro Ser Arg Asn Lys Pro Tyr  
1625                    1630                    1635  
  
Ile Ser Trp Pro Ser Ser Gly Gly Ser Glu Pro Ser Val Thr Val

1640                    1645                    1650  
Pro Leu Arg Ser Met Ser Asp Pro Asp Gln Asp Phe Asp Lys Glu  
1655                    1660                    1665  
  
Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro Ser Asn Ser Ser  
1670                    1675                    1680  
  
Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His Arg Ser Gln  
1685                    1690                    1695  
  
Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr  
1700                    1705                    1710  
  
<210> 220  
<211> 1711  
<212> PRT  
<213> Homo sapiens  
  
<400> 220  
  
Met Ser Ala Lys Val Arg Leu Lys Lys Leu Glu Gln Leu Leu Asp  
1                        5                        10                        15  
  
Gly Pro Trp Arg Asn Glu Ser Ala Leu Ser Val Glu Thr Leu Leu Asp  
20                      25                        30  
  
Val Leu Val Cys Leu Tyr Thr Glu Cys Ser His Ser Ala Leu Arg Arg  
35                      40                        45  
  
Asp Lys Tyr Val Ala Glu Phe Leu Glu Trp Ala Lys Pro Phe Thr Gln  
50                      55                        60  
  
Leu Val Lys Glu Met Gln Leu His Arg Glu Asp Phe Glu Ile Ile Lys  
65                      70                        75                        80  
  
Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Met Lys  
85                      90                        95  
  
Asn Thr Glu Arg Ile Tyr Ala Met Lys Ile Leu Asn Lys Trp Glu Met  
100                     105                        110  
  
Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu  
115                     120                        125  
  
Val Asn Gly Asp Cys Gln Trp Ile Thr Ala Leu His Tyr Ala Phe Gln  
130                     135                        140  
  
Asp Glu Asn His Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp  
145                     150                        155                        160  
  
Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Lys Leu Pro Glu Asp Met  
165                     170                        175  
  
Ala Arg Phe Tyr Ile Gly Glu Met Val Leu Ala Ile Asp Ser Ile His  
180                     185                        190

Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Val Leu Leu  
195 200 205

Asp Val Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys  
210 215 220

Met Asn Asp Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr Pro  
225 230 235 240

Asp Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Met Gly  
245 250 255

Lys Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr  
260 265 270

Glu Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu  
275 280 285

Thr Tyr Gly Lys Ile Met Asn His Glu Glu Arg Phe Gln Phe Pro Ser  
290 295 300

His Val Thr Asp Val Ser Glu Glu Ala Lys Asp Leu Ile Gln Arg Leu  
305 310 315 320

Ile Cys Ser Arg Glu Arg Arg Leu Gly Gln Asn Gly Ile Glu Asp Phe  
325 330 335

Lys Lys His Ala Phe Phe Glu Gly Leu Asn Trp Glu Asn Ile Arg Asn  
340 345 350

Leu Glu Ala Pro Tyr Ile Pro Asp Val Ser Ser Pro Ser Asp Thr Ser  
355 360 365

Asn Phe Asp Val Asp Asp Val Leu Arg Asn Thr Glu Ile Leu Pro  
370 375 380

Pro Gly Ser His Thr Gly Phe Ser Gly Leu His Leu Pro Phe Ile Gly  
385 390 395 400

Phe Thr Phe Thr Thr Glu Ser Cys Phe Ser Asp Arg Gly Ser Leu Lys  
405 410 415

Ser Ile Met Gln Ser Asn Thr Leu Thr Lys Asp Glu Asp Val Gln Arg  
420 425 430

Asp Leu Glu His Ser Leu Gln Met Glu Ala Tyr Glu Arg Arg Ile Arg  
435 440 445

Arg Leu Glu Gln Glu Lys Leu Glu Leu Ser Arg Lys Leu Gln Glu Ser  
450 455 460

Thr Gln Thr Val Gln Ser Leu His Gly Ser Ser Arg Ala Leu Ser Asn  
465 470 475 480

Ser Asn Arg Asp Lys Glu Ile Lys Lys Leu Asn Glu Glu Ile Glu Arg  
485 490 495

Leu Lys Asn Lys Ile Ala Asp Ser Asn Arg Leu Glu Arg Gln Leu Glu  
500 505 510

Asp Thr Val Ala Leu Arg Gln Glu Arg Glu Asp Ser Thr Gln Arg Leu  
515 520 525

Arg Gly Leu Glu Lys Gln His Arg Val Val Arg Gln Glu Lys Glu Glu  
530 535 540

Leu His Lys Gln Leu Val Glu Ala Ser Glu Arg Leu Lys Ser Gln Ala  
545 550 555 560

Lys Glu Leu Lys Asp Ala His Gln Gln Arg Lys Leu Ala Leu Gln Glu  
565 570 575

Phe Ser Glu Leu Asn Glu Arg Met Ala Glu Leu Arg Ala Gln Lys Gln  
580 585 590

Lys Val Ser Arg Gln Leu Arg Asp Lys Glu Glu Glu Met Glu Val Ala  
595 600 605

Thr Gln Lys Val Asp Ala Met Arg Gln Glu Met Arg Arg Ala Glu Lys  
610 615 620

Leu Arg Lys Glu Leu Glu Ala Gln Leu Asp Asp Ala Val Ala Glu Ala  
625 630 635 640

Ser Lys Glu Arg Lys Leu Arg Glu His Ser Glu Asn Phe Cys Lys Gln  
645 650 655

Met Glu Ser Glu Leu Glu Ala Leu Lys Val Lys Gln Gly Gly Arg Gly  
660 665 670

Ala Gly Ala Thr Leu Glu His Gln Gln Glu Ile Ser Lys Ile Lys Ser  
675 680 685

Glu Leu Glu Lys Lys Val Leu Phe Tyr Glu Glu Glu Leu Val Arg Arg  
690 695 700

Glu Ala Ser His Val Leu Glu Val Lys Asn Val Lys Lys Glu Val His  
705 710 715 720

Asp Ser Glu Ser His Gln Leu Ala Leu Gln Lys Glu Ile Leu Met Leu  
725 730 735

Lys Asp Lys Leu Glu Lys Ser Lys Arg Glu Arg His Asn Glu Met Glu  
740 745 750

Glu Ala Val Gly Thr Ile Lys Asp Lys Tyr Glu Arg Glu Arg Ala Met  
755 760 765

Leu Phe Asp Glu Asn Lys Lys Leu Thr Ala Glu Asn Glu Lys Leu Cys  
770 775 780

Ser Phe Val Asp Lys Leu Thr Ala Gln Asn Arg Gln Leu Glu Asp Glu  
785 790 795 800

Leu Gln Asp Leu Ala Ala Lys Lys Glu Ser Val Ala His Trp Glu Ala  
805 810 815

Gln Ile Ala Glu Ile Ile Gln Trp Val Ser Asp Glu Lys Asp Ala Arg  
820 825 830

Gly Tyr Leu Gln Ala Leu Ala Ser Lys Met Thr Glu Glu Leu Glu Ala  
835 840 845

Leu Arg Ser Ser Ser Leu Gly Ser Arg Thr Leu Asp Pro Leu Trp Lys  
850 855 860

Val Arg Arg Ser Gln Lys Leu Asp Met Ser Ala Arg Leu Glu Leu Gln  
865 870 875 880

Ser Ala Leu Glu Ala Glu Ile Arg Ala Lys Gln Leu Val Gln Glu Glu  
885 890 895

Leu Arg Lys Val Lys Asp Ala Asn Leu Thr Leu Glu Ser Lys Leu Lys  
900 905 910

Asp Ser Glu Ala Lys Asn Arg Glu Leu Leu Glu Glu Met Glu Ile Leu  
915 920 925

Lys Lys Lys Met Glu Glu Lys Phe Arg Ala Asp Thr Gly Leu Lys Leu  
930 935 940

Pro Asp Phe Gln Asp Ser Ile Phe Glu Tyr Phe Asn Thr Ala Pro Leu  
945 950 955 960

Ala His Asp Leu Thr Phe Arg Thr Ser Ser Ala Ser Glu Gln Glu Thr  
965 970 975

Gln Ala Pro Lys Pro Glu Ala Ser Pro Ser Met Ser Val Ala Ala Ser  
980 985 990

Glu Gln Gln Glu Asp Met Ala Arg Pro Pro Gln Arg Pro Ser Ala Val  
995 1000 1005

Pro Leu Pro Thr Thr Gln Ala Leu Val Leu Ala Gly Pro Lys Pro  
1010 1015 1020

Lys Ala His Gln Phe Ser Ile Lys Ser Phe Ser Ser Pro Thr Gln  
1025 1030 1035

Cys Ser His Cys Thr Ser Leu Met Val Gly Leu Ile Arg Gln Gly  
1040 1045 1050

Tyr Ala Cys Glu Val Cys Ser Phe Ala Cys His Val Ser Cys Lys  
1055 1060 1065

Asp Gly Ala Pro Gln Val Cys Pro Ile Pro Pro Glu Gln Ser Lys  
1070 1075 1080

Arg Pro Leu Gly Val Asp Val Gln Arg Gly Ile Gly Thr Ala Tyr  
1085 1090 1095

Lys Gly His Val Lys Val Pro Lys Pro Thr Gly Val Lys Lys Gly  
1100 1105 1110

Trp Gln Arg Ala Tyr Ala Val Val Cys Glu Cys Lys Leu Phe Leu  
1115 1120 1125

Tyr Asp Leu Pro Glu Gly Lys Ser Thr Gln Pro Gly Val Ile Ala  
1130 1135 1140

Ser Gln Val Leu Asp Leu Arg Asp Asp Glu Phe Ser Val Ser Ser  
1145 1150 1155

Val Leu Ala Ser Asp Val Ile His Ala Thr Arg Arg Asp Ile Pro  
1160 1165 1170

Cys Ile Phe Arg Val Thr Ala Ser Leu Leu Gly Ala Pro Ser Lys  
1175 1180 1185

Thr Ser Ser Leu Leu Ile Leu Thr Glu Asn Glu Asn Glu Lys Arg  
1190 1195 1200

Lys Trp Val Gly Ile Leu Glu Gly Leu Gln Ser Ile Leu His Lys  
1205 1210 1215

Asn Arg Leu Arg Asn Gln Val Val His Val Pro Leu Glu Ala Tyr  
1220 1225 1230

Asp Ser Ser Leu Pro Leu Ile Lys Ala Ile Leu Thr Ala Ala Ile  
1235 1240 1245

Val Asp Ala Asp Arg Ile Ala Val Gly Leu Glu Glu Gly Leu Tyr  
1250 1255 1260

Val Ile Glu Val Thr Arg Asp Val Ile Val Arg Ala Ala Asp Cys  
1265 1270 1275

Lys Lys Val His Gln Ile Glu Leu Ala Pro Arg Glu Lys Ile Val  
1280 1285 1290

Ile Leu Leu Cys Gly Arg Asn His His Val His Leu Tyr Pro Trp  
1295 1300 1305

Ser Ser Leu Asp Gly Ala Glu Gly Ser Phe Asp Ile Lys Leu Pro  
1310 1315 1320

Glu Thr Lys Gly Cys Gln Leu Met Ala Thr Ala Thr Leu Lys Arg  
1325 1330 1335

Asn Ser Gly Thr Cys Leu Phe Val Ala Val Lys Arg Leu Ile Leu  
1340 1345 1350

Cys Tyr Glu Ile Gln Arg Thr Lys Pro Phe His Arg Lys Phe Asn  
1355 1360 1365

Glu Ile Val Ala Pro Gly Ser Val Gln Cys Leu Ala Val Leu Arg  
1370 1375 1380

Asp Arg Leu Cys Val Gly Tyr Pro Ser Gly Phe Cys Leu Leu Ser  
1385 1390 1395

Ile Gln Gly Asp Gly Gln Pro Leu Asn Leu Val Asn Pro Asn Asp  
1400 1405 1410

Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser Phe Asp Ala Leu Cys  
1415 1420 1425

Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu Cys Phe Ser His  
1430 1435 1440

Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala Arg Ala Gln  
1445 1450 1455

Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys Ser Pro  
1460 1465 1470

Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe Asp  
1475 1480 1485

Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile  
1490 1495 1500

Arg Pro Leu Asn Ser Glu Gly Thr Leu Asn Leu Leu Asn Cys Glu  
1505 1510 1515

Pro Pro Arg Leu Ile Tyr Phe Lys Ser Lys Phe Ser Gly Ala Val  
1520 1525 1530

Leu Asn Val Pro Asp Thr Ser Asp Asn Ser Lys Lys Gln Met Leu  
1535 1540 1545

Arg Thr Arg Ser Lys Arg Arg Phe Val Phe Lys Val Pro Glu Glu  
1550 1555 1560

Glu Arg Leu Gln Gln Arg Arg Glu Met Leu Arg Asp Pro Glu Leu  
1565 1570 1575

Arg Ser Lys Met Ile Ser Asn Pro Thr Asn Phe Asn His Val Ala  
1580 1585 1590

His Met Gly Pro Gly Asp Gly Met Gln Val Leu Met Asp Leu Pro  
1595 1600 1605

Leu Ser Ala Val Pro Pro Ser Gln Glu Glu Arg Pro Gly Pro Ala  
1610 1615 1620

Pro Thr Asn Leu Ala Arg Gln Pro Pro Ser Arg Asn Lys Pro Tyr  
1625 1630 1635

Ile Ser Trp Pro Ser Ser Gly Gly Ser Glu Pro Ser Val Thr Val  
1640 1645 1650

Pro Leu Arg Ser Met Ser Asp Pro Asp Gln Asp Phe Asp Lys Glu  
1655 1660 1665

Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro Ser Asn Ser Ser  
1670 1675 1680

Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His Arg Ser Gln  
1685 1690 1695

Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr  
1700 1705 1710

<210> 221

<211> 415

<212> PRT

<213> Homo sapiens

<400> 221

Met Glu Leu Arg Val Gly Asn Arg Tyr Arg Leu Gly Arg Lys Ile Gly  
1 5 10 15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Gly Thr Asp Ile Ala Ala Gly  
20 25 30

Glu Glu Val Ala Ile Lys Leu Glu Cys Val Lys Thr Lys His Pro Gln  
35 40 45

Leu His Ile Glu Ser Lys Ile Tyr Lys Met Met Gln Gly Gly Val Gly  
50 55 60

Ile Pro Thr Ile Arg Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met  
65 70 75 80

Val Met Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys  
85 90 95

Ser Arg Lys Phe Ser Leu Lys Thr Val Leu Leu Leu Ala Asp Gln Met  
100 105 110

Ile Ser Arg Ile Glu Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp  
115 120 125

Val Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu  
130 135 140

Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg  
145 150 155 160

Thr His Gln His Ile Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr  
165 170 175

Ala Arg Tyr Ala Ser Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg  
180 185 190

Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu  
195 200 205

Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys  
210 215 220

Tyr Glu Arg Ile Ser Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu  
225 230 235 240

Cys Lys Gly Tyr Pro Ser Glu Phe Ala Thr Tyr Leu Asn Phe Cys Arg  
245 250 255

Ser Leu Arg Phe Asp Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu  
260 265 270

Phe Arg Asn Leu Phe His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe  
275 280 285

Asp Trp Asn Met Leu Lys Phe Gly Ala Ser Arg Ala Ala Asp Asp Ala  
290 295 300

Glu Arg Glu Arg Arg Asp Arg Glu Glu Arg Leu Arg His Ser Arg Asn  
305 310 315 320

Pro Ala Thr Arg Gly Leu Pro Ser Thr Asp Ser Gly Arg Leu Arg Gly  
325 330 335

Thr Gln Glu Val Ala Pro Pro Thr Pro Leu Thr Pro Thr Ser His Thr  
340 345 350

Ala Asn Thr Ser Pro Arg Pro Val Ser Gly Met Glu Arg Glu Arg Lys  
355 360 365

Val Ser Met Arg Leu His Arg Gly Ala Pro Val Asn Ile Ser Ser Ser  
370 375 380

Asp Leu Thr Gly Arg Gln Asp Thr Ser Arg Met Ser Thr Ser Gln Ile  
385 390 395 400

Pro Gly Arg Val Ala Ser Ser Gly Leu Gln Ser Val Val His Arg  
405 410 415

<210> 222  
<211> 1169  
<212> PRT  
<213> Homo sapiens

<400> 222

Met Asn Met Phe Leu Tyr Phe Gln Thr Ile Ile Lys Glu Gly Met Leu  
1 5 10 15

Thr Lys Gln Asn Asn Ser Phe Gln Arg Ser Lys Arg Arg Tyr Phe Lys  
20 25 30

Leu Arg Gly Arg Thr Leu Tyr Tyr Ala Lys Thr Ala Lys Ser Ile Ile  
35 40 45

Phe Asp Glu Val Asp Leu Thr Asp Ala Ser Val Ala Glu Ser Ser Thr  
50 55 60

Lys Asn Val Asn Asn Ser Phe Thr Val Ile Thr Pro Cys Arg Lys Leu

65	70	75	80
Ile Leu Cys Ala Asp Asn Arg Lys Glu Met	Glu Asp Trp Ile Ala Ala		
85	90	95	
Leu Lys Thr Val Gln Asn Arg Glu His Phe	Glu Pro Thr Gln Tyr Ser		
100	105	110	
Met Asp His Phe Ser Gly Met His Asn Trp	Tyr Ala Cys Ser His Ala		
115	120	125	
Arg Pro Thr Tyr Cys Asn Val Cys Arg Glu	Ala Leu Ser Gly Val Thr		
130	135	140	
Ser His Gly Leu Ser Cys Glu Val Cys Lys	Phe Lys Ala His Lys Arg		
145	150	155	160
Cys Ala Val Arg Ala Thr Asn Asn Cys Lys	Trp Thr Thr Leu Ala Ser		
165	170	175	
Ile Gly Lys Asp Ile Ile Glu Asp Ala Asp	Gly Ile Ala Met Pro His		
180	185	190	
Gln Trp Leu Glu Gly Asn Leu Pro Val Ser	Ala Lys Cys Thr Val Cys		
195	200	205	
Asp Lys Thr Cys Gly Ser Val Leu Arg Leu	Gln Asp Trp Arg Cys Leu		
210	215	220	
Trp Cys Lys Ala Met Val His Thr Ser Cys	Lys Glu Ser Leu Leu Thr		
225	230	235	240
Lys Cys Pro Leu Gly Leu Cys Lys Val Ser	Val Ile Pro Pro Thr Ala		
245	250	255	
Leu Asn Ser Ile Asp Ser Asp Gly Phe	Trp Lys Ala Ser Cys Pro Pro		
260	265	270	
Ser Cys Thr Ser Pro Leu Leu Val Phe	Val Asn Ser Lys Ser Gly Asp		
275	280	285	
Asn Gln Gly Val Lys Phe Leu Arg Arg	Phe Lys Gln Leu Leu Asn Pro		
290	295	300	
Ala Gln Val Phe Asp Leu Met Asn Gly	Gly Pro His Leu Gly Leu Arg		
305	310	315	320
Leu Phe Gln Lys Phe Asp Thr Phe Arg	Ile Leu Val Cys Gly Gly Asp		
325	330	335	
Gly Ser Val Gly Trp Val Leu Ser Glu	Ile Asp Ser Leu Asn Leu His		
340	345	350	
Lys Gln Cys Gln Leu Gly Val Leu Pro	Leu Gly Thr Gly Asn Asp Leu		
355	360	365	
Ala Arg Val Leu Gly Trp Gly Ser Ala	Cys Asp Asp Asp Thr Gln Leu		

370                    375                    380  
Pro Gln Ile Leu Glu Lys Leu Glu Arg Ala Ser Thr Lys Met Leu Asp  
385                    390                    395                    400  
Arg Trp Ser Val Met Ala Tyr Glu Ala Lys Leu Pro Arg Gln Ala Ser  
405                    410                    415  
Ser Ser Thr Val Thr Glu Asp Phe Ser Glu Asp Ser Glu Val Gln Gln  
420                    425                    430  
Ile Leu Phe Tyr Glu Asp Ser Val Ala Ala His Leu Ser Lys Ile Leu  
435                    440                    445  
Thr Ser Asp Gln His Ser Val Val Ile Ser Ser Ala Lys Val Leu Cys  
450                    455                    460  
Glu Thr Pro Lys Asp Phe Val Ala Arg Val Gly Lys Ala Tyr Glu Lys  
465                    470                    475                    480  
Thr Thr Glu Ser Ser Glu Glu Ser Glu Val Met Ala Lys Lys Cys Ser  
485                    490                    495  
Val Leu Lys Glu Lys Leu Asp Ser Leu Leu Lys Thr Leu Asp Asp Glu  
500                    505                    510  
Ser Gln Ala Ser Ser Ser Leu Pro Asn Pro Pro Pro Thr Ile Ala Glu  
515                    520                    525  
Glu Ala Glu Asp Gly Asp Gly Ser Gly Ser Ile Cys Gly Ser Thr Gly  
530                    535                    540  
Asp Arg Leu Val Ala Ser Ala Cys Pro Ala Arg Pro Gln Ile Phe Arg  
545                    550                    555                    560  
Pro Arg Glu Gln Leu Met Leu Arg Ala Asn Ser Leu Lys Lys Ala Ile  
565                    570                    575  
Arg Gln Ile Ile Glu His Thr Glu Lys Ala Val Asp Glu Gln Asn Ala  
580                    585                    590  
Gln Thr Gln Glu Gln Glu Gly Phe Val Leu Gly Leu Ser Glu Ser Glu  
595                    600                    605  
Glu Lys Met Asp His Arg Val Cys Pro Pro Leu Ser His Ser Glu Ser  
610                    615                    620  
Phe Gly Val Pro Lys Gly Arg Ser Gln Arg Lys Val Ser Lys Ser Pro  
625                    630                    635                    640  
Cys Glu Lys Leu Ile Ser Lys Gly Ser Leu Ser Leu Gly Ser Ser Ala  
645                    650                    655  
Ser Leu Pro Pro Gln Pro Gly Ser Arg Asp Gly Leu Pro Ala Leu Asn  
660                    665                    670  
Thr Lys Ile Leu Tyr Pro Asn Val Arg Ala Gly Met Ser Gly Ser Leu

675	680	685
Pro Gly Gly Ser Val Ile Ser Arg Leu Leu Ile Asn Ala Asp Pro Phe		
690	695	700
Asn Ser Glu Pro Glu Thr Leu Glu Tyr Tyr Thr Glu Lys Cys Val Met		
705	710	715
720		
Asn Asn Tyr Phe Gly Ile Gly Leu Asp Ala Lys Ile Ser Leu Asp Phe		
725	730	735
Asn Asn Lys Arg Asp Glu His Pro Glu Lys Cys Arg Ser Arg Thr Lys		
740	745	750
Asn Met Met Trp Tyr Gly Val Leu Gly Thr Lys Glu Leu Leu His Arg		
755	760	765
Thr Tyr Lys Asn Leu Glu Gln Lys Val Leu Leu Glu Cys Asp Gly Asp		
770	775	780
Pro Ser His Ser Pro Val Leu Gln Gly Ile Ala Val Leu Asn Ile Pro		
785	790	795
800		
Ser Tyr Ala Gly Gly Thr Asn Phe Trp Gly Gly Thr Lys Glu Asp Asp		
805	810	815
Thr Phe Ala Ala Pro Ser Phe Asp Asp Lys Ile Leu Glu Val Val Ala		
820	825	830
Val Phe Gly Ser Met Gln Met Ala Val Ser Arg Val Ile Arg Leu Gln		
835	840	845
His His Arg Ile Ala Gln Cys Arg Thr Val Lys Ile Ser Ile Leu Gly		
850	855	860
Asp Glu Gly Val Pro Val Gln Val Asp Gly Glu Ala Trp Val Gln Pro		
865	870	875
880		
Pro Gly Tyr Ile Arg Ile Val His Lys Asn Arg Ala Gln Thr Leu Thr		
885	890	895
Arg Asp Arg Ala Phe Glu Ser Thr Leu Lys Ser Trp Glu Asp Lys Gln		
900	905	910
Lys Cys Glu Val Pro Arg Pro Pro Ser Cys Ser Leu His Pro Glu Met		
915	920	925
Leu Ser Glu Glu Glu Ala Thr Gln Met Asp Gln Phe Gly Gln Ala Ala		
930	935	940
Gly Val Leu Ile His Ser Ile Arg Glu Ile Ala Gln Ser His Arg Asp		
945	950	955
960		
Met Glu Gln Glu Leu Ala His Ala Val Asn Ala Ser Ser Lys Ser Met		
965	970	975
Asp Arg Val Tyr Gly Lys Pro Arg Thr Thr Glu Gly Leu Asn Cys Ser		

980

985

990

Phe Val Leu Glu Met Val Asn Asn Phe Arg Ala Leu Arg Ser Glu Thr  
995 1000 1005

Glu Leu Leu Ser Gly Lys Met Ala Leu Gln Leu Asp Pro Pro Gln  
1010 1015 1020

Lys Glu Gln Leu Gly Ser Ala Leu Ala Glu Met Asp Arg Gln Leu  
1025 1030 1035

Arg Arg Leu Ala Asp Thr Pro Trp Leu Cys Gln Ser Ala Glu Pro  
1040 1045 1050

Gly Asp Glu Glu Ser Val Met Leu Asp Leu Ala Lys Arg Ser Arg  
1055 1060 1065

Ser Gly Lys Phe Arg Leu Val Thr Lys Phe Lys Lys Glu Lys Asn  
1070 1075 1080

Asn Lys Asn Lys Glu Ala His Ser Ser Leu Gly Ala Pro Val His  
1085 1090 1095

Leu Trp Gly Thr Glu Glu Val Ala Ala Trp Leu Glu His Leu Ser  
1100 1105 1110

Leu Cys Glu Tyr Lys Asp Ile Phe Thr Arg His Asp Ile Arg Gly  
1115 1120 1125

Ser Glu Leu Leu His Leu Glu Arg Arg Asp Leu Lys Asp Leu Gly  
1130 1135 1140

Val Thr Lys Val Gly His Met Lys Arg Ile Leu Cys Gly Ile Lys  
1145 1150 1155

Glu Leu Ser Arg Ser Ala Pro Ala Val Glu Ala  
1160 1165

<210> 223

<211> 480

<212> PRT

<213> Homo sapiens

<400> 223

Met Ser Asp Val Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp  
20 25 30

Gly Thr Phe Ile Gly Tyr Lys Glu Arg Pro Gln Asp Val Asp Gln Arg  
35 40 45

Glu Ala Pro Leu Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys  
50 55 60

Thr Glu Arg Pro Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp  
65 70 75 80

Thr Thr Val Ile Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg  
85 90 95

Glu Glu Trp Thr Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys  
100 105 110

Gln Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn  
115 120 125

Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg  
130 135 140

Val Thr Met Asn Glu Phe Glu Tyr Leu Lys Leu Leu Gly Lys Gly Thr  
145 150 155 160

Phe Gly Lys Val Ile Leu Val Lys Glu Lys Ala Thr Gly Arg Tyr Tyr  
165 170 175

Ala Met Lys Ile Leu Lys Lys Glu Val Ile Val Ala Lys Asp Glu Val  
180 185 190

Ala His Thr Leu Thr Glu Asn Arg Val Leu Gln Asn Ser Arg His Pro  
195 200 205

Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys  
210 215 220

Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser  
225 230 235 240

Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu  
245 250 255

Ile Val Ser Ala Leu Asp Tyr Leu His Ser Glu Lys Asn Val Val Tyr  
260 265 270

Arg Asp Leu Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile  
275 280 285

Lys Ile Thr Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala  
290 295 300

Thr Met Lys Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
305 310 315 320

Leu Glu Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly  
325 330 335

Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln  
340 345 350

Asp His Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Glu Ile Arg Phe  
355 360 365

Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser Leu Leu Ser Gly Leu Leu  
370 375 380

Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly Ser Glu Asp Ala Lys  
385 390 395 400

Glu Ile Met Gln His Arg Phe Phe Ala Gly Ile Val Trp Gln His Val  
405 410 415

Tyr Glu Lys Lys Leu Ser Pro Pro Phe Lys Pro Gln Val Thr Ser Glu  
420 425 430

Thr Asp Thr Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Met Ile Thr  
435 440 445

Ile Thr Pro Pro Asp Gln Asp Asp Ser Met Glu Cys Val Asp Ser Glu  
450 455 460

Arg Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Ser Thr Ala  
465 470 475 480

<210> 224  
<211> 1175  
<212> PRT  
<213> Homo sapiens

<400> 224

Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly Gln Leu Ala Ala Ile  
1 5 10 15

Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu Glu Ile Lys Leu Glu  
20 25 30

Ile Asn Met Leu Lys Lys Tyr Ser His His Arg Asn Ile Ala Thr Tyr  
35 40 45

Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly His Asp Asp Gln Leu  
50 55 60

Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser Ile Thr Asp Leu Val  
65 70 75 80

Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp Trp Ile Ala Tyr Ile  
85 90 95

Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu His Ile His His Val  
100 105 110

Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu Leu Thr Glu Asn Ala  
115 120 125

Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala Gln Leu Asp Arg Thr  
130 135 140

Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro Tyr Trp Met Ala Pro  
145 150 155 160

Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala Thr Tyr Asp Tyr Arg  
165 170 175

Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile Glu Met Ala Glu Gly  
180 185 190

Ala Pro Pro Leu Cys Asp Met His Pro Met Arg Ala Leu Phe Leu Ile  
195 200 205

Pro Arg Asn Pro Pro Arg Leu Lys Ser Lys Lys Trp Ser Lys Lys  
210 215 220

Phe Phe Ser Phe Ile Glu Gly Cys Leu Val Lys Asn Tyr Met Gln Arg  
225 230 235 240

Pro Ser Thr Glu Gln Leu Leu Lys His Pro Phe Ile Arg Asp Gln Pro  
245 250 255

Asn Glu Arg Gln Val Arg Ile Gln Leu Lys Asp His Ile Asp Arg Thr  
260 265 270

Arg Lys Lys Arg Gly Glu Lys Asp Glu Thr Glu Tyr Glu Tyr Ser Gly  
275 280 285

Ser Glu Glu Glu Glu Glu Val Pro Glu Gln Glu Gly Glu Pro Ser  
290 295 300

Ser Ile Val Asn Val Pro Gly Glu Ser Thr Leu Arg Arg Asp Phe Leu  
305 310 315 320

Arg Leu Gln Gln Glu Asn Lys Glu Arg Ser Glu Ala Leu Arg Arg Gln  
325 330 335

Gln Leu Leu Gln Glu Gln Leu Arg Glu Gln Glu Glu Tyr Lys Arg  
340 345 350

Gln Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln Gln Lys Glu Gln  
355 360 365

Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Glu Arg Glu Ala Arg Arg  
370 375 380

Gln Gln Glu Arg Glu Gln Arg Arg Arg Glu Gln Glu Glu Lys Arg Arg  
385 390 395 400

Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu Glu Arg Arg Arg  
405 410 415

Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln Glu Tyr Ile Arg  
420 425 430

Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val Leu Gln Gln Gln  
435 440 445

Leu Leu Gln Glu Gln Ala Met Leu Leu His Asp His Arg Arg Pro His  
450 455 460

Pro Gln His Ser Gln Gln Pro Pro Pro Pro Gln Gln Glu Arg Ser Lys  
465 470 475 480

Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr Glu Pro Ala Asp  
485 490 495

Arg Ala Arg Glu Val Glu Asp Arg Phe Arg Lys Thr Asn His Ser Ser  
500 505 510

Pro Glu Ala Gln Ser Lys Gln Thr Gly Arg Val Leu Glu Pro Pro Val  
515 520 525

Pro Ser Arg Ser Glu Ser Phe Ser Asn Gly Asn Ser Glu Ser Val His  
530 535 540

Pro Ala Leu Gln Arg Pro Ala Glu Pro Gln Val Pro Val Arg Thr Thr  
545 550 555 560

Ser Arg Ser Pro Val Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser  
565 570 575

Gly Gln Gln Asn Ser Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile  
580 585 590

Glu Pro Arg Leu Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro  
595 600 605

Gly Ser Gly Ser Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly  
610 615 620

Ser His Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg  
625 630 635 640

Ser Ser Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala  
645 650 655

Val Lys Lys Pro Glu Asp Lys Glu Val Phe Arg Pro Leu Lys Pro  
660 665 670

Ala Gly Glu Val Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val  
675 680 685

Glu Asp Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser  
690 695 700

Glu Glu Ser Gly Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Gln Glu  
705 710 715 720

Gly Ala Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser  
725 730 735

Ser Leu Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile  
740 745 750

Val His Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu  
755 760 765

Gly Thr Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln  
770 775 780

Lys His Lys Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu  
785 790 795 800

Leu Gln Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly  
805 810 815

Phe Ser Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr  
820 825 830

Arg Lys Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln  
835 840 845

Ser Asp Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu  
850 855 860

Ile Leu Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu  
865 870 875 880

Ser Gly Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro  
885 890 895

Leu Ile Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu  
900 905 910

Asn Val Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr  
915 920 925

Tyr Leu Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val  
930 935 940

Glu Lys Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val  
945 950 955 960

His Tyr Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala  
965 970 975

Leu Lys Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His  
980 985 990

Lys Phe Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu  
995 1000 1005

Leu Val Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile  
1010 1015 1020

Tyr Gly Ser Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly  
1025 1030 1035

Ser Val Tyr Asp Ile Tyr Leu Pro Thr His Ile Gln Cys Ser Ile  
1040 1045 1050

Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly Met Glu  
1055 1060 1065

Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr  
1070 1075 1080

Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro  
1085 1090 1095

Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly  
1100 1105 1110

Glu Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp  
1115 1120 1125

Gly Val Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys  
1130 1135 1140

Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly  
1145 1150 1155

Ser Ser Gln Val Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu  
1160 1165 1170

Ser Trp  
1175

<210> 225  
<211> 1175  
<212> PRT  
<213> Homo sapiens

<400> 225

Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly Gln Leu Ala Ala Ile  
1 5 10 15

Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu Ile Lys Leu Glu  
20 25 30

Ile Asn Met Leu Lys Lys Tyr Ser His His Arg Asn Ile Ala Thr Tyr  
35 40 45

Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly His Asp Asp Gln Leu  
50 55 60

Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser Ile Thr Asp Leu Val  
65 70 75 80

Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp Trp Ile Ala Tyr Ile  
85 90 95

Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu His Ile His His Val  
100 105 110

Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu Leu Thr Glu Asn Ala  
115 120 125

Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala Gln Leu Asp Arg Thr

130                    135                    140  
Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro Tyr Trp Met Ala Pro  
145                    150                    155                    160  
Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala Thr Tyr Asp Tyr Arg  
165                    170                    175  
Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile Glu Met Ala Glu Gly  
180                    185                    190  
Ala Pro Pro Leu Cys Asp Met His Pro Met Arg Ala Leu Phe Leu Ile  
195                    200                    205  
Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser Lys Lys Trp Ser Lys Lys  
210                    215                    220  
Phe Phe Ser Phe Ile Glu Gly Cys Leu Val Lys Asn Tyr Met Gln Arg  
225                    230                    235                    240  
Pro Ser Thr Glu Gln Leu Leu Lys His Pro Phe Ile Arg Asp Gln Pro  
245                    250                    255  
Asn Glu Arg Gln Val Arg Ile Gln Leu Lys Asp His Ile Asp Arg Thr  
260                    265                    270  
Arg Lys Lys Arg Gly Glu Lys Asp Glu Thr Glu Tyr Glu Tyr Ser Gly  
275                    280                    285  
Ser Glu Glu Glu Glu Glu Val Pro Glu Gln Glu Gly Glu Pro Ser  
290                    295                    300  
Ser Ile Val Asn Val Pro Gly Glu Ser Thr Leu Arg Arg Asp Phe Leu  
305                    310                    315                    320  
Arg Leu Gln Gln Glu Asn Lys Glu Arg Ser Glu Ala Leu Arg Arg Gln  
325                    330                    335  
Gln Leu Leu Gln Glu Gln Gln Leu Arg Glu Gln Glu Glu Tyr Lys Arg  
340                    345                    350  
Gln Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln Gln Lys Glu Gln  
355                    360                    365  
Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Glu Arg Glu Ala Arg Arg  
370                    375                    380  
Gln Gln Glu Arg Glu Gln Arg Arg Glu Gln Glu Glu Lys Arg Arg  
385                    390                    395                    400  
Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu Glu Arg Arg Arg  
405                    410                    415  
Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln Glu Tyr Ile Arg  
420                    425                    430  
Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val Leu Gln Gln Gln

435

440

445

Leu Leu Gln Glu Gln Ala Met Leu Leu His Asp His Arg Arg Pro His  
450 455 460

Pro Gln His Ser Gln Gln Pro Pro Pro Gln Gln Glu Arg Ser Lys  
465 470 475 480

Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr Glu Pro Ala Asp  
485 490 495

Arg Ala Arg Glu Val Glu Asp Arg Phe Arg Lys Thr Asn His Ser Ser  
500 505 510

Pro Glu Ala Gln Ser Lys Gln Thr Gly Arg Val Leu Glu Pro Pro Val  
515 520 525

Pro Ser Arg Ser Glu Ser Phe Ser Asn Gly Asn Ser Glu Ser Val His  
530 535 540

Pro Ala Leu Gln Arg Pro Ala Glu Pro Gln Val Pro Val Arg Thr Thr  
545 550 555 560

Ser Arg Ser Pro Val Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser  
565 570 575

Gly Gln Gln Asn Ser Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile  
580 585 590

Glu Pro Arg Leu Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro  
595 600 605

Gly Ser Gly Ser Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly  
610 615 620

Ser His Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg  
625 630 635 640

Ser Ser Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala  
645 650 655

Val Lys Lys Pro Glu Asp Lys Glu Val Phe Arg Pro Leu Lys Pro  
660 665 670

Ala Gly Glu Val Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val  
675 680 685

Glu Asp Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser  
690 695 700

Glu Glu Ser Gly Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Gln Glu  
705 710 715 720

Gly Ala Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser  
725 730 735

Ser Leu Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile

740                    745                    750

Val His Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu  
755                    760                    765

Gly Thr Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln  
770                    775                    780

Lys His Lys Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu  
785                    790                    800

Leu Gln Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly  
805                    810                    815

Phe Ser Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr  
820                    825                    830

Arg Lys Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln  
835                    840                    845

Ser Asp Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu  
850                    855                    860

Ile Leu Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu  
865                    870                    880

Ser Gly Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro  
885                    890                    895

Leu Ile Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu  
900                    905                    910

Asn Val Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr  
915                    920                    925

Tyr Leu Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val  
930                    935                    940

Glu Lys Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val  
945                    950                    960

His Tyr Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala  
965                    970                    975

Leu Lys Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His  
980                    985                    990

Lys Phe Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu  
995                    1000                  1005

Leu Val Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile  
1010                  1015                  1020

Tyr Gly Ser Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly  
1025                  1030                  1035

Ser Val Tyr Asp Ile Tyr Leu Pro Thr His Ile Gln Cys Ser Ile

1040                    1045                    1050  
Lys Pro His Ala Ile Ile Leu Pro Asn Thr Asp Gly Met Glu  
1055                    1060                    1065  
  
Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr  
1070                    1075                    1080  
  
Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro  
1085                    1090                    1095  
  
Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly  
1100                    1105                    1110  
  
Glu Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp  
1115                    1120                    1125  
  
Gly Val Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys  
1130                    1135                    1140  
  
Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly  
1145                    1150                    1155  
  
Ser Ser Gln Val Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu  
1160                    1165                    1170  
  
Ser Trp  
1175  
  
<210> 226  
<211> 1175  
<212> PRT  
<213> Homo sapiens  
  
<400> 226  
  
Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly Gln Leu Ala Ala Ile  
1                        5                        10                        15  
  
Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu Ile Lys Leu Glu  
20                      25                      30  
  
Ile Asn Met Leu Lys Lys Tyr Ser His His Arg Asn Ile Ala Thr Tyr  
35                      40                      45  
  
Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly His Asp Asp Gln Leu  
50                      55                      60  
  
Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser Ile Thr Asp Leu Val  
65                      70                      75                      80  
  
Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp Trp Ile Ala Tyr Ile  
85                      90                      95  
  
Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu His Ile His His Val  
100                     105                     110

Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu Leu Thr Glu Asn Ala  
115 120 125

Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala Gln Leu Asp Arg Thr  
130 135 140

Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro Tyr Trp Met Ala Pro  
145 150 155 160

Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala Thr Tyr Asp Tyr Arg  
165 170 175

Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile Glu Met Ala Glu Gly  
180 185 190

Ala Pro Pro Leu Cys Asp Met His Pro Met Arg Ala Leu Phe Leu Ile  
195 200 205

Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser Lys Lys Trp Ser Lys Lys  
210 215 220

Phe Phe Ser Phe Ile Glu Gly Cys Leu Val Lys Asn Tyr Met Gln Arg  
225 230 235 240

Pro Ser Thr Glu Gln Leu Leu Lys His Pro Phe Ile Arg Asp Gln Pro  
245 250 255

Asn Glu Arg Gln Val Arg Ile Gln Leu Lys Asp His Ile Asp Arg Thr  
260 265 270

Arg Lys Lys Arg Gly Glu Lys Asp Glu Thr Glu Tyr Glu Tyr Ser Gly  
275 280 285

Ser Glu Glu Glu Glu Glu Val Pro Glu Gln Glu Gly Glu Pro Ser  
290 295 300

Ser Ile Val Asn Val Pro Gly Glu Ser Thr Leu Arg Arg Asp Phe Leu  
305 310 315 320

Arg Leu Gln Gln Glu Asn Lys Glu Arg Ser Glu Ala Leu Arg Arg Gln  
325 330 335

Gln Leu Leu Gln Glu Gln Gln Leu Arg Glu Gln Glu Glu Tyr Lys Arg  
340 345 350

Gln Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln Gln Lys Glu Gln  
355 360 365

Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Glu Arg Glu Ala Arg Arg  
370 375 380

Gln Gln Glu Arg Glu Gln Arg Arg Glu Gln Glu Glu Lys Arg Arg  
385 390 395 400

Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu Glu Arg Arg Arg  
405 410 415

Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln Glu Tyr Ile Arg  
420 425 430

Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val Leu Gln Gln Gln  
435 440 445

Leu Leu Gln Glu Gln Ala Met Leu Leu His Asp His Arg Arg Pro His  
450 455 460

Pro Gln His Ser Gln Gln Pro Pro Pro Gln Gln Glu Arg Ser Lys  
465 470 475 480

Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr Glu Pro Ala Asp  
485 490 495

Arg Ala Arg Glu Val Glu Asp Arg Phe Arg Lys Thr Asn His Ser Ser  
500 505 510

Pro Glu Ala Gln Ser Lys Gln Thr Gly Arg Val Leu Glu Pro Pro Val  
515 520 525

Pro Ser Arg Ser Glu Ser Phe Ser Asn Gly Asn Ser Glu Ser Val His  
530 535 540

Pro Ala Leu Gln Arg Pro Ala Glu Pro Gln Val Pro Val Arg Thr Thr  
545 550 555 560

Ser Arg Ser Pro Val Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser  
565 570 575

Gly Gln Gln Asn Ser Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile  
580 585 590

Glu Pro Arg Leu Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro  
595 600 605

Gly Ser Gly Ser Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly  
610 615 620

Ser His Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg  
625 630 635 640

Ser Ser Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala  
645 650 655

Val Lys Lys Pro Glu Asp Lys Lys Glu Val Phe Arg Pro Leu Lys Pro  
660 665 670

Ala Gly Glu Val Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val  
675 680 685

Glu Asp Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser  
690 695 700

Glu Glu Ser Gly Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Gln Glu  
705 710 715 720

Gly Ala Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser  
725 730 735

Ser Leu Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile  
740 745 750

Val His Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu  
755 760 765

Gly Thr Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln  
770 775 780

Lys His Lys Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu  
785 790 795 800

Leu Gln Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly  
805 810 815

Phe Ser Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr  
820 825 830

Arg Lys Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln  
835 840 845

Ser Asp Thr Pro Glu Ile Arg Lys Tyr Lys Arg Phe Asn Ser Glu  
850 855 860

Ile Leu Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu  
865 870 875 880

Ser Gly Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro  
885 890 895

Leu Ile Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu  
900 905 910

Asn Val Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr  
915 920 925

Tyr Leu Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val  
930 935 940

Glu Lys Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val  
945 950 955 960

His Tyr Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala  
965 970 975

Leu Lys Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His  
980 985 990

Lys Phe Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu  
995 1000 1005

Leu Val Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile  
1010 1015 1020

Tyr Gly Ser Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly  
1025 1030 1035

Ser Val Tyr Asp Ile Tyr Leu Pro Thr His Ile Gln Cys Ser Ile  
1040 1045 1050

Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly Met Glu  
1055 1060 1065

Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr  
1070 1075 1080

Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro  
1085 1090 1095

Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly  
1100 1105 1110

Glu Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp  
1115 1120 1125

Gly Val Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys  
1130 1135 1140

Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly  
1145 1150 1155

Ser Ser Gln Val Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu  
1160 1165 1170

Ser Trp  
1175

<210> 227

<211> 983

<212> PRT

<213> Homo sapiens

<400> 227

Met Asp Cys Gln Leu Ser Ile Leu Leu Leu Ser Cys Ser Val Leu  
1 5 10 15

Asp Ser Phe Gly Glu Leu Ile Pro Gln Pro Ser Asn Glu Val Asn Leu  
20 25 30

Leu Asp Ser Lys Thr Ile Gln Gly Glu Leu Gly Trp Ile Ser Tyr Pro  
35 40 45

Ser His Gly Trp Glu Glu Ile Ser Gly Val Asp Glu His Tyr Thr Pro  
50 55 60

Ile Arg Thr Tyr Gln Val Cys Asn Val Met Asp His Ser Gln Asn Asn  
65 70 75 80

Trp Leu Arg Thr Asn Trp Val Pro Arg Asn Ser Ala Gln Lys Ile Tyr  
85 90 95

Val Glu Leu Lys Phe Thr Leu Arg Asp Cys Asn Ser Ile Pro Leu Val  
100 105 110

Leu Gly Thr Cys Lys Glu Thr Phe Asn Leu Tyr Tyr Met Glu Ser Asp  
115 120 125

Asp Asp His Gly Val Lys Phe Arg Glu His Gln Phe Thr Lys Ile Asp  
130 135 140

Thr Ile Ala Ala Asp Glu Ser Phe Thr Gln Met Asp Leu Gly Asp Arg  
145 150 155 160

Ile Leu Lys Leu Asn Thr Glu Ile Arg Glu Val Gly Pro Val Asn Lys  
165 170 175

Lys Gly Phe Tyr Leu Ala Phe Gln Asp Val Gly Ala Cys Val Ala Leu  
180 185 190

Val Ser Val Arg Val Tyr Phe Lys Lys Cys Pro Phe Thr Val Lys Asn  
195 200 205

Leu Ala Met Phe Pro Asp Thr Val Pro Met Asp Ser Gln Ser Leu Val  
210 215 220

Glu Val Arg Gly Ser Cys Val Asn Asn Ser Lys Glu Glu Asp Pro Pro  
225 230 235 240

Arg Met Tyr Cys Ser Thr Glu Gly Glu Trp Leu Val Pro Ile Gly Lys  
245 250 255

Cys Ser Cys Asn Ala Gly Tyr Glu Glu Arg Gly Phe Met Cys Gln Ala  
260 265 270

Cys Arg Pro Gly Phe Tyr Lys Ala Leu Asp Gly Asn Met Lys Cys Ala  
275 280 285

Lys Cys Pro Pro His Ser Ser Thr Gln Glu Asp Gly Ser Met Asn Cys  
290 295 300

Arg Cys Glu Asn Asn Tyr Phe Arg Ala Asp Lys Asp Pro Pro Ser Met  
305 310 315 320

Ala Cys Thr Arg Pro Pro Ser Ser Pro Arg Asn Val Ile Ser Asn Ile  
325 330 335

Asn Glu Thr Ser Val Ile Leu Asp Trp Ser Trp Pro Leu Asp Thr Gly  
340 345 350

Gly Arg Lys Asp Val Thr Phe Asn Ile Ile Cys Lys Lys Cys Gly Trp  
355 360 365

Asn Ile Lys Gln Cys Glu Pro Cys Ser Pro Asn Val Arg Phe Leu Pro  
370 375 380

Arg Gln Phe Gly Leu Thr Asn Thr Thr Val Thr Val Thr Asp Leu Leu  
385 390 395 400

Ala His Thr Asn Tyr Thr Phe Glu Ile Asp Ala Val Asn Gly Val Ser  
405 410 415

Glu Leu Ser Ser Pro Pro Arg Gln Phe Ala Ala Val Ser Ile Thr Thr  
420 425 430

Asn Gln Ala Ala Pro Ser Pro Val Leu Thr Ile Lys Lys Asp Arg Thr  
435 440 445

Ser Arg Asn Ser Ile Ser Leu Ser Trp Gln Glu Pro Glu His Pro Asn  
450 455 460

Gly Ile Ile Leu Asp Tyr Glu Val Lys Tyr Tyr Glu Lys Gln Glu Gln  
465 470 475 480

Glu Thr Ser Tyr Thr Ile Leu Arg Ala Arg Gly Thr Asn Val Thr Ile  
485 490 495

Ser Ser Leu Lys Pro Asp Thr Ile Tyr Val Phe Gln Ile Arg Ala Arg  
500 505 510

Thr Ala Ala Gly Tyr Gly Thr Asn Ser Arg Lys Phe Glu Phe Glu Thr  
515 520 525

Ser Pro Asp Ser Phe Ser Ile Ser Gly Glu Ser Ser Gln Val Val Met  
530 535 540

Ile Ala Ile Ser Ala Ala Val Ala Ile Ile Leu Leu Thr Val Val Ile  
545 550 555 560

Tyr Val Leu Ile Gly Arg Phe Cys Gly Tyr Lys Ser Lys His Gly Ala  
565 570 575

Asp Glu Lys Arg Leu His Phe Gly Asn Gly His Leu Lys Leu Pro Gly  
580 585 590

Leu Arg Thr Tyr Val Asp Pro His Thr Tyr Glu Asp Pro Thr Gln Ala  
595 600 605

Val His Glu Phe Ala Lys Glu Leu Asp Ala Thr Asn Ile Ser Ile Asp  
610 615 620

Lys Val Val Gly Ala Gly Glu Phe Gly Glu Val Cys Ser Gly Arg Leu  
625 630 635 640

Lys Leu Pro Ser Lys Lys Glu Ile Ser Val Ala Ile Lys Thr Leu Lys  
645 650 655

Val Gly Tyr Thr Glu Lys Gln Arg Arg Asp Phe Leu Gly Glu Ala Ser  
660 665 670

Ile Met Gly Gln Phe Asp His Pro Asn Ile Ile Arg Leu Glu Gly Val  
675 680 685

Val Thr Lys Ser Lys Pro Val Met Ile Val Thr Glu Tyr Met Glu Asn  
690 695 700

Gly Ser Leu Asp Ser Phe Leu Arg Lys His Asp Ala Gln Phe Thr Val  
705 710 715 720

Ile Gln Leu Val Gly Met Leu Arg Gly Ile Ala Ser Gly Met Lys Tyr  
725 730 735

Leu Ser Asp Met Gly Tyr Val His Arg Asp Leu Ala Ala Arg Asn Ile  
740 745 750

Leu Ile Asn Ser Asn Leu Val Cys Lys Val Ser Asp Phe Gly Leu Ser  
755 760 765

Arg Val Leu Glu Asp Asp Pro Glu Ala Ala Tyr Thr Thr Arg Gly Gly  
770 775 780

Lys Ile Pro Ile Arg Trp Thr Ser Pro Glu Ala Ile Ala Tyr Arg Lys  
785 790 795 800

Phe Thr Ser Ala Ser Asp Val Trp Ser Tyr Gly Ile Val Leu Trp Glu  
805 810 815

Val Met Ser Tyr Gly Glu Arg Pro Tyr Trp Glu Met Ser Asn Gln Asp  
820 825 830

Val Ile Lys Ala Val Asp Glu Gly Tyr Arg Leu Pro Pro Pro Met Asp  
835 840 845

Cys Pro Ala Ala Leu Tyr Gln Leu Met Leu Asp Cys Trp Gln Lys Asp  
850 855 860

Arg Asn Asn Arg Pro Lys Phe Glu Gln Ile Val Ser Ile Leu Asp Lys  
865 870 875 880

Leu Ile Arg Asn Pro Gly Ser Leu Lys Ile Ile Thr Ser Ala Ala Ala  
885 890 895

Arg Pro Ser Asn Leu Leu Asp Gln Ser Asn Val Asp Ile Ser Thr  
900 905 910

Phe Arg Thr Thr Gly Asp Trp Leu Asn Gly Val Arg Thr Ala His Cys  
915 920 925

Lys Glu Ile Phe Thr Gly Val Glu Tyr Ser Ser Cys Asp Thr Ile Ala  
930 935 940

Lys Ile Ser Thr Asp Asp Met Lys Lys Val Gly Val Thr Val Val Gly  
945 950 955 960

Pro Gln Lys Lys Ile Ile Ser Ser Ile Lys Ala Leu Glu Thr Gln Ser  
965 970 975

Lys Asn Gly Pro Val Pro Val  
980

<210> 228  
<211> 496

<212> PRT

<213> Homo sapiens

<400> 228

Met Ser Gly Glu Val Arg Leu Arg Gln Leu Glu Gln Phe Ile Leu Asp  
1 5 10 15

Gly Pro Ala Gln Thr Asn Gly Gln Tyr Phe Ser Val Glu Thr Leu Leu  
20 25 30

Asp Ile Leu Ile Cys Leu Tyr Asp Glu Cys Asn Asn Ser Pro Leu Arg  
35 40 45

Arg Glu Lys Asn Ile Leu Glu Tyr Leu Glu Trp Ala Lys Pro Phe Thr  
50 55 60

Ser Lys Val Lys Gln Met Arg Leu His Arg Glu Asp Phe Glu Ile Leu  
65 70 75 80

Lys Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Leu  
85 90 95

Lys Asn Ala Asp Lys Val Phe Ala Met Lys Ile Leu Asn Lys Trp Glu  
100 105 110

Met Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val  
115 120 125

Leu Val Asn Gly Asp Asn Lys Trp Ile Thr Thr Leu His Tyr Ala Phe  
130 135 140

Gln Asp Asp Asn Asn Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly  
145 150 155 160

Asp Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Arg Leu Pro Glu Asp  
165 170 175

Met Ala Arg Phe Tyr Leu Ala Glu Met Val Ile Ala Ile Asp Ser Val  
180 185 190

His Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Ile Leu  
195 200 205

Met Asp Met Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu  
210 215 220

Lys Leu Met Glu Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr  
225 230 235 240

Pro Asp Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Lys  
245 250 255

Gly Arg Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met  
260 265 270

Tyr Glu Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val

275

280

285

Glu Thr Tyr Gly Lys Ile Met Asn His Lys Glu Arg Phe Gln Phe Pro  
290 295 300

Ala Gln Val Thr Asp Val Ser Glu Asn Ala Lys Asp Leu Ile Arg Arg  
305 310 315 320

Leu Ile Cys Ser Arg Glu His Arg Leu Gly Gln Asn Gly Ile Glu Asp  
325 330 335

Phe Lys Lys His Pro Phe Phe Ser Gly Ile Asp Trp Asp Asn Ile Arg  
340 345 350

Asn Cys Glu Ala Pro Tyr Ile Pro Glu Val Ser Ser Pro Thr Asp Thr  
355 360 365

Ser Asn Phe Asp Val Asp Asp Cys Leu Lys Asn Ser Glu Thr Met  
370 375 380

Pro Pro Pro Thr His Thr Ala Phe Ser Gly His His Leu Pro Phe Val  
385 390 395 400

Gly Phe Thr Tyr Thr Ser Ser Cys Val Leu Ser Asp Arg Ser Cys Leu  
405 410 415

Arg Val Thr Ala Gly Pro Thr Ser Leu Asp Leu Asp Val Asn Val Gln  
420 425 430

Arg Thr Leu Asp Asn Asn Leu Ala Thr Glu Ala Tyr Glu Arg Arg Ile  
435 440 445

Lys Arg Leu Glu Gln Glu Lys Leu Glu Leu Ser Arg Lys Leu Gln Glu  
450 455 460

Ser Thr Gln Thr Val Gln Ala Leu Gln Tyr Ser Thr Val Asp Gly Pro  
465 470 475 480

Leu Thr Ala Ser Lys Asp Leu Glu Ile Lys Asn Leu Lys Glu Glu Ile  
485 490 495

<210> 229

<211> 433

<212> PRT

<213> Homo sapiens

<400> 229

Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu  
1 5 10 15

Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr  
20 25 30

Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys  
35 40 45

Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys  
50 55 60

Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu  
65 70 75 80

Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys  
85 90 95

Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln  
100 105 110

Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val  
115 120 125

Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro  
130 135 140

Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Cys Gln Leu  
145 150 155 160

Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp  
165 170 175

Ile Lys Pro Gly Asn Leu Leu Leu Thr Thr Gly Gly Thr Leu Lys Ile  
180 185 190

Ser Asp Leu Gly Val Ala Glu Ala Leu His Pro Phe Ala Ala Asp Asp  
195 200 205

Thr Cys Arg Thr Ser Gln Gly Ser Pro Ala Phe Gln Pro Pro Glu Ile  
210 215 220

Ala Asn Gly Leu Asp Thr Phe Ser Gly Phe Lys Val Asp Ile Trp Ser  
225 230 235 240

Ala Gly Val Thr Leu Tyr Asn Ile Thr Thr Gly Leu Tyr Pro Phe Glu  
245 250 255

Gly Asp Asn Ile Tyr Lys Leu Phe Glu Asn Ile Gly Lys Gly Ser Tyr  
260 265 270

Ala Ile Pro Gly Asp Cys Gly Pro Pro Leu Ser Asp Leu Leu Lys Gly  
275 280 285

Met Leu Glu Tyr Glu Pro Ala Lys Arg Phe Ser Ile Arg Gln Ile Arg  
290 295 300

Gln His Ser Trp Phe Arg Lys Lys His Pro Pro Ala Glu Ala Pro Val  
305 310 315 320

Pro Ile Pro Pro Ser Pro Asp Thr Lys Asp Arg Trp Arg Ser Met Thr  
325 330 335

Val Val Pro Tyr Leu Glu Asp Leu His Gly Ala Asp Glu Asp Glu Asp  
340 345 350

Leu Phe Asp Ile Glu Asp Asp Ile Ile Tyr Thr Gln Asp Phe Thr Val  
355 360 365

Pro Gly Gln Val Pro Glu Glu Ala Ser His Asn Gly Gln Arg Arg  
370 375 380

Gly Leu Pro Lys Ala Val Cys Met Asn Gly Thr Glu Ala Ala Gln Leu  
385 390 395 400

Ser Thr Lys Ser Arg Ala Glu Gly Arg Ala Pro Asn Pro Ala Arg Lys  
405 410 415

Ala Cys Ser Ala Ser Ser Lys Ile Arg Arg Leu Ser Ala Cys Lys Gln  
420 425 430

Gln

<210> 230

<211> 433

<212> PRT

<213> Homo sapiens

<400> 230

Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu  
1 5 10 15

Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr  
20 25 30

Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys  
35 40 45

Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys  
50 55 60

Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu  
65 70 75 80

Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys  
85 90 95

Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln  
100 105 110

Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val  
115 120 125

Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro  
130 135 140

Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Cys Gln Leu  
145 150 155 160

Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp  
165 170 175

Ile Lys Pro Gly Asn Leu Leu Leu Thr Thr Gly Gly Thr Leu Lys Ile  
180 185 190

Ser Asp Leu Gly Val Ala Glu Ala Leu His Pro Phe Ala Ala Asp Asp  
195 200 205

Thr Cys Arg Thr Ser Gln Gly Ser Pro Ala Phe Gln Pro Pro Glu Ile  
210 215 220

Ala Asn Gly Leu Asp Thr Phe Ser Gly Phe Lys Val Asp Ile Trp Ser  
225 230 235 240

Ala Gly Val Thr Leu Tyr Asn Ile Thr Thr Gly Leu Tyr Pro Phe Glu  
245 250 255

Gly Asp Asn Ile Tyr Lys Leu Phe Glu Asn Ile Gly Lys Gly Ser Tyr  
260 265 270

Ala Ile Pro Gly Asp Cys Gly Pro Pro Leu Ser Asp Leu Leu Lys Gly  
275 280 285

Met Leu Glu Tyr Glu Pro Ala Lys Arg Phe Ser Ile Arg Gln Ile Arg  
290 295 300

Gln His Ser Trp Phe Arg Lys Lys His Pro Pro Ala Glu Ala Pro Val  
305 310 315 320

Pro Ile Pro Pro Ser Pro Asp Thr Lys Asp Arg Trp Arg Ser Met Thr  
325 330 335

Val Val Pro Tyr Leu Glu Asp Leu His Gly Ala Asp Glu Asp Glu Asp  
340 345 350

Leu Phe Asp Ile Glu Asp Asp Ile Ile Tyr Thr Gln Asp Phe Thr Val  
355 360 365

Pro Gly Gln Val Pro Glu Glu Ala Ser His Asn Gly Gln Arg Arg  
370 375 380

Gly Leu Pro Lys Ala Val Cys Met Asn Gly Thr Glu Ala Ala Gln Leu  
385 390 395 400

Ser Thr Lys Ser Arg Ala Glu Gly Arg Ala Pro Asn Pro Ala Arg Lys  
405 410 415

Ala Cys Ser Ala Ser Ser Lys Ile Arg Arg Leu Ser Ala Cys Lys Gln  
420 425 430

Gln

<210> 231  
<211> 518  
<212> PRT  
<213> Homo sapiens

<400> 231

Met Ser Cys Val Lys Leu Trp Pro Ser Gly Ala Pro Ala Pro Leu Val  
1 5 10 15

Ser Ile Glu Glu Leu Glu Asn Gln Glu Leu Val Gly Lys Asp Gly Phe  
20 25 30

Gly Thr Val Phe Arg Ala Gln His Arg Lys Trp Gly Tyr Asp Val Ala  
35 40 45

Val Lys Ile Val Asn Ser Lys Ala Ile Ser Arg Glu Val Lys Ala Met  
50 55 60

Ala Ser Leu Asp Asn Glu Phe Val Leu Arg Leu Glu Gly Val Ile Glu  
65 70 75 80

Lys Val Asn Trp Asp Gln Asp Pro Lys Pro Ala Leu Val Thr Lys Phe  
85 90 95

Met Glu Asn Gly Ser Leu Ser Gly Leu Leu Gln Ser Gln Cys Pro Arg  
100 105 110

Pro Trp Pro Leu Leu Cys Arg Leu Leu Lys Glu Val Val Leu Gly Met  
115 120 125

Phe Tyr Leu His Asp Gln Asn Pro Val Leu Leu His Arg Asp Leu Lys  
130 135 140

Pro Ser Asn Val Leu Pro Asp Pro Glu Leu His Val Lys Leu Ala Asp  
145 150 155 160

Phe Gly Leu Ser Thr Phe Gln Gly Gly Ser Gln Ser Gly Thr Gly Ser  
165 170 175

Gly Glu Pro Gly Gly Thr Leu Gly Tyr Leu Ala Pro Glu Leu Phe Val  
180 185 190

Asn Val Asn Arg Lys Ala Ser Thr Ala Ser Asp Val Tyr Ser Phe Gly  
195 200 205

Ile Leu Met Trp Ala Val Leu Ala Gly Arg Glu Val Glu Leu Pro Thr  
210 215 220

Glu Pro Ser Leu Val Tyr Glu Ala Val Cys Asn Arg Gln Asn Arg Pro  
225 230 235 240

Ser Leu Ala Glu Leu Pro Gln Ala Gly Pro Glu Thr Pro Gly Leu Glu  
245 250 255

Gly Leu Lys Glu Leu Met Gln Leu Cys Trp Ser Ser Glu Pro Lys Asp  
260 265 270

Arg Pro Ser Phe Gln Glu Cys Leu Pro Lys Thr Asp Glu Val Phe Gln  
275 280 285

Met Val Glu Asn Asn Met Asn Ala Ala Val Ser Thr Val Lys Asp Phe

290                    295                    300  
Leu Ser Gln Leu Lys Ser Ser Asn Arg Arg Phe Ser Ile Pro Glu Ser  
305                    310                    315                    320  
Gly Gln Gly Gly Thr Glu Met Asp Gly Phe Arg Arg Thr Ile Glu Asn  
325                    330                    335  
Gln His Ser Arg Asn Asp Val Met Val Ser Glu Trp Leu Asn Lys Leu  
340                    345                    350  
Asn Leu Glu Glu Pro Pro Ser Ser Val Pro Lys Lys Cys Pro Ser Leu  
355                    360                    365  
Thr Lys Arg Ser Arg Ala Gln Glu Glu Gln Val Pro Gln Ala Trp Thr  
370                    375                    380  
Ala Gly Thr Ser Ser Asp Ser Met Ala Gln Pro Pro Gln Thr Pro Glu  
385                    390                    395                    400  
Thr Ser Thr Phe Arg Asn Gln Met Pro Ser Pro Thr Ser Thr Gly Thr  
405                    410                    415  
Pro Ser Pro Gly Pro Arg Gly Asn Gln Gly Ala Glu Arg Gln Gly Met  
420                    425                    430  
Asn Trp Ser Cys Arg Thr Pro Glu Pro Asn Pro Val Thr Gly Arg Pro  
435                    440                    445  
Leu Val Asn Ile Tyr Asn Cys Ser Gly Val Gln Val Gly Asp Asn Asn  
450                    455                    460  
Tyr Leu Thr Met Gln Gln Thr Thr Ala Leu Pro Thr Trp Gly Leu Ala  
465                    470                    475                    480  
Pro Ser Gly Lys Gly Arg Gly Leu Gln His Pro Pro Pro Val Gly Ser  
485                    490                    495  
Gln Glu Gly Pro Lys Asp Pro Glu Ala Trp Ser Arg Pro Gln Gly Trp  
500                    505                    510  
Tyr Asn His Ser Gly Lys  
515  
<210> 232  
<211> 756  
<212> PRT  
<213> Homo sapiens  
  
<400> 232  
  
Met Ser Trp Ser Pro Ser Leu Thr Thr Gln Thr Cys Gly Ala Trp Glu  
1                    5                    10                    15  
Met Lys Glu Arg Leu Gly Thr Gly Gly Phe Gly Asn Val Ile Arg Trp  
20                    25                    30

His Asn Gln Glu Thr Gly Glu Gln Ile Ala Ile Lys Gln Cys Arg Gln  
35 40 45

Glu Leu Ser Pro Arg Asn Arg Glu Arg Trp Cys Leu Glu Ile Gln Ile  
50 55 60

Met Arg Arg Leu Thr His Pro Asn Val Val Ala Ala Arg Asp Val Pro  
65 70 75 80

Glu Gly Met Gln Asn Leu Ala Pro Asn Asp Leu Pro Leu Leu Ala Met  
85 90 95

Glu Tyr Cys Gln Gly Gly Asp Leu Arg Lys Tyr Leu Asn Gln Phe Glu  
100 105 110

Asn Cys Cys Gly Leu Arg Glu Gly Ala Ile Leu Thr Leu Leu Ser Asp  
115 120 125

Ile Ala Ser Ala Leu Arg Tyr Leu His Glu Asn Arg Ile Ile His Arg  
130 135 140

Asp Leu Lys Pro Glu Asn Ile Val Leu Gln Gln Gly Glu Gln Arg Leu  
145 150 155 160

Ile His Lys Ile Ile Asp Leu Gly Tyr Ala Lys Glu Leu Asp Gln Gly  
165 170 175

Ser Leu Cys Thr Ser Phe Val Gly Thr Leu Gln Tyr Leu Ala Pro Glu  
180 185 190

Leu Leu Glu Gln Gln Lys Tyr Thr Val Thr Val Asp Tyr Trp Ser Phe  
195 200 205

Gly Thr Leu Ala Phe Glu Cys Ile Thr Gly Phe Arg Pro Phe Leu Pro  
210 215 220

Asn Trp Gln Pro Val Gln Trp His Ser Lys Val Arg Gln Lys Ser Glu  
225 230 235 240

Val Asp Ile Val Val Ser Glu Asp Leu Asn Gly Thr Val Lys Phe Ser  
245 250 255

Ser Ser Leu Pro Tyr Pro Asn Asn Leu Asn Ser Val Leu Ala Glu Arg  
260 265 270

Leu Glu Lys Trp Leu Gln Leu Met Leu Met Trp His Pro Arg Gln Arg  
275 280 285

Gly Thr Asp Pro Thr Tyr Gly Pro Asn Gly Cys Phe Lys Ala Leu Asp  
290 295 300

Asp Ile Leu Asn Leu Lys Leu Val His Ile Leu Asn Met Val Thr Gly  
305 310 315 320

Thr Ile His Thr Tyr Pro Val Thr Glu Asp Glu Ser Leu Gln Ser Leu  
325 330 335

Lys Ala Arg Ile Gln Gln Asp Thr Gly Ile Pro Glu Glu Asp Gln Glu  
340 345 350

Leu Leu Gln Glu Ala Gly Leu Ala Leu Ile Pro Asp Lys Pro Ala Thr  
355 360 365

Gln Cys Ile Ser Asp Gly Lys Leu Asn Glu Gly His Thr Leu Asp Met  
370 375 380

Asp Leu Val Phe Leu Phe Asp Asn Ser Lys Ile Thr Tyr Glu Thr Gln  
385 390 395 400

Ile Ser Pro Arg Pro Gln Pro Glu Ser Val Ser Cys Ile Leu Gln Glu  
405 410 415

Pro Lys Arg Asn Leu Ala Phe Phe Gln Leu Arg Lys Val Trp Gly Gln  
420 425 430

Val Trp His Ser Ile Gln Thr Leu Lys Glu Asp Cys Asn Arg Leu Gln  
435 440 445

Gln Gly Gln Arg Ala Ala Met Met Asn Leu Leu Arg Asn Asn Ser Cys  
450 455 460

Leu Ser Lys Met Lys Asn Ser Met Ala Ser Met Ser Gln Gln Leu Lys  
465 470 475 480

Ala Lys Leu Asp Phe Phe Lys Thr Ser Ile Gln Ile Asp Leu Glu Lys  
485 490 495

Tyr Ser Glu Gln Thr Glu Phe Gly Ile Thr Ser Asp Lys Leu Leu Leu  
500 505 510

Ala Trp Arg Glu Met Glu Gln Ala Val Glu Leu Cys Gly Arg Glu Asn  
515 520 525

Glu Val Lys Leu Leu Val Glu Arg Met Met Ala Leu Gln Thr Asp Ile  
530 535 540

Val Asp Leu Gln Arg Ser Pro Met Gly Arg Lys Gln Gly Gly Thr Leu  
545 550 555 560

Asp Asp Leu Glu Glu Gln Ala Arg Glu Leu Tyr Arg Arg Leu Arg Glu  
565 570 575

Lys Pro Arg Asp Gln Arg Thr Glu Gly Asp Ser Gln Glu Met Val Arg  
580 585 590

Leu Leu Leu Gln Ala Ile Gln Ser Phe Glu Lys Lys Val Arg Val Ile  
595 600 605

Tyr Thr Gln Leu Ser Lys Thr Val Val Cys Lys Gln Lys Ala Leu Glu  
610 615 620

Leu Leu Pro Lys Val Glu Glu Val Val Ser Leu Met Asn Glu Asp Glu  
625 630 635 640

Lys Thr Val Val Arg Leu Gln Glu Lys Arg Gln Lys Glu Leu Trp Asn  
645 650 655

Leu Leu Lys Ile Ala Cys Ser Lys Val Arg Gly Pro Val Ser Gly Ser  
660 665 670

Pro Asp Ser Met Asn Ala Ser Arg Leu Ser Gln Pro Gly Gln Leu Met  
675 680 685

Ser Gln Pro Ser Thr Ala Ser Asn Ser Leu Pro Glu Pro Ala Lys Lys  
690 695 700

Ser Glu Glu Leu Val Ala Glu Ala His Asn Leu Cys Thr Leu Leu Glu  
705 710 715 720

Asn Ala Ile Gln Asp Thr Val Arg Glu Gln Asp Gln Ser Phe Thr Ala  
725 730 735

Leu Asp Trp Ser Trp Leu Gln Thr Glu Glu Glu Glu His Ser Cys Leu  
740 745 750

Glu Gln Ala Ser  
755

<210> 233  
<211> 647  
<212> PRT  
<213> Homo sapiens

<400> 233

Met Arg Leu Thr Leu Leu Cys Cys Thr Trp Arg Glu Glu Arg Met Gly  
1 5 10 15

Glu Glu Gly Ser Glu Leu Pro Val Cys Ala Ser Cys Gly Gln Arg Ile  
20 25 30

Tyr Asp Gly Gln Tyr Leu Gln Ala Leu Asn Ala Asp Trp His Ala Asp  
35 40 45

Cys Phe Arg Cys Cys Asp Cys Ser Ala Ser Leu Ser His Gln Tyr Tyr  
50 55 60

Glu Lys Asp Gly Gln Leu Phe Cys Lys Asp Tyr Trp Ala Arg Tyr  
65 70 75 80

Gly Glu Ser Cys His Gly Cys Ser Glu Gln Ile Thr Lys Gly Leu Val  
85 90 95

Met Val Ala Gly Glu Leu Lys Tyr His Pro Glu Cys Phe Ile Cys Leu  
100 105 110

Thr Cys Gly Thr Phe Ile Gly Asp Gly Asp Thr Tyr Thr Leu Val Glu  
115 120 125

His Ser Lys Leu Tyr Cys Gly His Cys Tyr Tyr Gln Thr Val Val Thr  
130 135 140

Pro Val Ile Glu Gln Ile Leu Pro Asp Ser Pro Gly Ser His Leu Pro  
145 150 155 160

His Thr Val Thr Leu Val Ser Ile Pro Ala Ser Ser His Gly Lys Arg  
165 170 175

Gly Leu Ser Val Ser Ile Asp Pro Pro His Gly Pro Pro Gly Cys Gly  
180 185 190

Thr Glu His Ser His Thr Val Arg Val Gln Gly Val Asp Pro Gly Cys  
195 200 205

Met Ser Pro Asp Val Lys Asn Ser Ile His Val Gly Asp Arg Ile Leu  
210 215 220

Glu Ile Asn Gly Thr Pro Ile Arg Asn Val Pro Leu Asp Glu Ile Asp  
225 230 235 240

Leu Leu Ile Gln Glu Thr Ser Arg Leu Leu Gln Leu Thr Leu Glu His  
245 250 255

Asp Pro His Asp Thr Leu Gly His Gly Leu Gly Pro Glu Thr Ser Pro  
260 265 270

Leu Ser Ser Pro Ala Tyr Thr Pro Ser Gly Glu Ala Gly Ser Ser Ala  
275 280 285

Arg Gln Lys Pro Val Leu Arg Ser Cys Ser Ile Asp Arg Ser Pro Gly  
290 295 300

Ala Gly Ser Leu Gly Ser Pro Ala Ser Gln Arg Lys Asp Leu Gly Arg  
305 310 315 320

Ser Glu Ser Leu Arg Val Val Cys Arg Pro His Arg Ile Phe Arg Pro  
325 330 335

Ser Asp Leu Ile His Gly Glu Val Leu Gly Lys Gly Cys Phe Gly Gln  
340 345 350

Ala Ile Lys Val Thr His Arg Glu Thr Gly Glu Val Met Val Met Lys  
355 360 365

Glu Leu Ile Arg Phe Asp Glu Glu Thr Gln Arg Thr Phe Leu Lys Glu  
370 375 380

Val Lys Val Met Arg Cys Leu Glu His Pro Asn Val Leu Lys Phe Ile  
385 390 395 400

Gly Val Leu Tyr Lys Asp Lys Arg Leu Asn Phe Ile Thr Glu Tyr Ile  
405 410 415

Lys Gly Gly Thr Leu Arg Gly Ile Ile Lys Ser Met Asp Ser Gln Tyr  
420 425 430

Pro Trp Ser Gln Arg Val Ser Phe Ala Lys Asp Ile Ala Ser Gly Met  
435 440 445

Ala Tyr Leu His Ser Met Asn Ile Ile His Arg Asp Leu Asn Ser His  
450 455 460

Asn Cys Leu Val Arg Glu Asn Lys Asn Val Val Val Ala Asp Phe Gly  
465 470 475 480

Leu Ala Arg Leu Met Val Asp Glu Lys Thr Gln Pro Glu Gly Leu Arg  
485 490 495

Ser Leu Lys Lys Pro Asp Arg Lys Lys Arg Tyr Thr Val Val Gly Asn  
500 505 510

Pro Tyr Trp Met Ala Pro Glu Met Ile Asn Gly Arg Ser Tyr Asp Glu  
515 520 525

Lys Val Asp Val Phe Ser Phe Gly Ile Val Leu Cys Glu Ile Ile Gly  
530 535 540

Arg Val Asn Ala Asp Pro Asp Tyr Leu Pro Arg Thr Met Asp Phe Gly  
545 550 555 560

Leu Asn Val Arg Gly Phe Leu Asp Arg Tyr Cys Pro Pro Asn Cys Pro  
565 570 575

Pro Ser Phe Phe Pro Ile Thr Val Arg Cys Cys Asp Leu Asp Pro Glu  
580 585 590

Lys Arg Pro Ser Phe Val Lys Leu Glu His Trp Leu Glu Thr Leu Arg  
595 600 605

Met His Leu Ala Gly His Leu Pro Leu Gly Pro Gln Leu Glu Gln Leu  
610 615 620

Asp Arg Gly Phe Trp Glu Thr Tyr Arg Arg Gly Glu Ser Gly Leu Pro  
625 630 635 640

Ala His Pro Glu Val Pro Asp  
645

<210> 234  
<211> 647  
<212> PRT  
<213> Homo sapiens

<400> 234

Met Arg Leu Thr Leu Leu Cys Cys Thr Trp Arg Glu Glu Arg Met Gly  
1 5 10 15

Glu Glu Gly Ser Glu Leu Pro Val Cys Ala Ser Cys Gly Gln Arg Ile  
20 25 30

Tyr Asp Gly Gln Tyr Leu Gln Ala Leu Asn Ala Asp Trp His Ala Asp  
35 40 45

Cys Phe Arg Cys Cys Asp Cys Ser Ala Ser Leu Ser His Gln Tyr Tyr

50                    55                    60

Glu Lys Asp Gly Gln Leu Phe Cys Lys Lys Asp Tyr Trp Ala Arg Tyr  
65                    70                    75                    80

Gly Glu Ser Cys His Gly Cys Ser Glu Gln Ile Thr Lys Gly Leu Val  
85                    90                    95

Met Val Ala Gly Glu Leu Lys Tyr His Pro Glu Cys Phe Ile Cys Leu  
100                  105                  110

Thr Cys Gly Thr Phe Ile Gly Asp Gly Asp Thr Tyr Thr Leu Val Glu  
115                  120                  125

His Ser Lys Leu Tyr Cys Gly His Cys Tyr Tyr Gln Thr Val Val Thr  
130                  135                  140

Pro Val Ile Glu Gln Ile Leu Pro Asp Ser Pro Gly Ser His Leu Pro  
145                  150                  155                  160

His Thr Val Thr Leu Val Ser Ile Pro Ala Ser Ser His Gly Lys Arg  
165                  170                  175

Gly Leu Ser Val Ser Ile Asp Pro Pro His Gly Pro Pro Gly Cys Gly  
180                  185                  190

Thr Glu His Ser His Thr Val Arg Val Gln Gly Val Asp Pro Gly Cys  
195                  200                  205

Met Ser Pro Asp Val Lys Asn Ser Ile His Val Gly Asp Arg Ile Leu  
210                  215                  220

Glu Ile Asn Gly Thr Pro Ile Arg Asn Val Pro Leu Asp Glu Ile Asp  
225                  230                  235                  240

Leu Leu Ile Gln Glu Thr Ser Arg Leu Leu Gln Leu Thr Leu Glu His  
245                  250                  255

Asp Pro His Asp Thr Leu Gly His Gly Leu Gly Pro Glu Thr Ser Pro  
260                  265                  270

Leu Ser Ser Pro Ala Tyr Thr Pro Ser Gly Glu Ala Gly Ser Ser Ala  
275                  280                  285

Arg Gln Lys Pro Val Leu Arg Ser Cys Ser Ile Asp Arg Ser Pro Gly  
290                  295                  300

Ala Gly Ser Leu Gly Ser Pro Ala Ser Gln Arg Lys Asp Leu Gly Arg  
305                  310                  315                  320

Ser Glu Ser Leu Arg Val Val Cys Arg Pro His Arg Ile Phe Arg Pro  
325                  330                  335

Ser Asp Leu Ile His Gly Glu Val Leu Gly Lys Gly Cys Phe Gly Gln  
340                  345                  350

Ala Ile Lys Val Thr His Arg Glu Thr Gly Glu Val Met Val Met Lys

355	360	365
Glu Leu Ile Arg Phe Asp Glu Glu Thr Gln Arg Thr Phe Leu Lys Glu		
370	375	380
Val Lys Val Met Arg Cys Leu Glu His Pro Asn Val Leu Lys Phe Ile		
385	390	395
Gly Val Leu Tyr Lys Asp Lys Arg Leu Asn Phe Ile Thr Glu Tyr Ile		
405	410	415
Lys Gly Gly Thr Leu Arg Gly Ile Ile Lys Ser Met Asp Ser Gln Tyr		
420	425	430
Pro Trp Ser Gln Arg Val Ser Phe Ala Lys Asp Ile Ala Ser Gly Met		
435	440	445
Ala Tyr Leu His Ser Met Asn Ile Ile His Arg Asp Leu Asn Ser His		
450	455	460
Asn Cys Leu Val Arg Glu Asn Lys Asn Val Val Val Ala Asp Phe Gly		
465	470	475
Leu Ala Arg Leu Met Val Asp Glu Lys Thr Gln Pro Glu Gly Leu Arg		
485	490	495
Ser Leu Lys Lys Pro Asp Arg Lys Lys Arg Tyr Thr Val Val Gly Asn		
500	505	510
Pro Tyr Trp Met Ala Pro Glu Met Ile Asn Gly Arg Ser Tyr Asp Glu		
515	520	525
Lys Val Asp Val Phe Ser Phe Gly Ile Val Leu Cys Glu Ile Ile Gly		
530	535	540
Arg Val Asn Ala Asp Pro Asp Tyr Leu Pro Arg Thr Met Asp Phe Gly		
545	550	555
560		
Leu Asn Val Arg Gly Phe Leu Asp Arg Tyr Cys Pro Pro Asn Cys Pro		
565	570	575
Pro Ser Phe Phe Pro Ile Thr Val Arg Cys Cys Asp Leu Asp Pro Glu		
580	585	590
Lys Arg Pro Ser Phe Val Lys Leu Glu His Trp Leu Glu Thr Leu Arg		
595	600	605
Met His Leu Ala Gly His Leu Pro Leu Gly Pro Gln Leu Glu Gln Leu		
610	615	620
Asp Arg Gly Phe Trp Glu Thr Tyr Arg Arg Gly Glu Ser Gly Leu Pro		
625	630	635
640		
Ala His Pro Glu Val Pro Asp		
645		

<211> 942  
<212> PRT  
<213> Homo sapiens

<400> 235

Met Ala Ser Asp Ala Val Gln Ser Glu Pro Arg Ser Trp Ser Leu Leu  
1 5 10 15

Glu Gln Leu Gly Leu Ala Gly Ala Asp Leu Ala Ala Pro Gly Val Gln  
20 25 30

Gln Gln Leu Glu Leu Glu Arg Glu Arg Leu Arg Arg Glu Ile Arg Lys  
35 40 45

Glu Leu Lys Leu Lys Glu Gly Ala Glu Asn Leu Arg Arg Ala Thr Thr  
50 55 60

Asp Leu Gly Arg Ser Leu Gly Pro Val Glu Leu Leu Leu Arg Gly Ser  
65 70 75 80

Ser Arg Arg Leu Asp Leu Leu His Gln Gln Leu Gln Glu Leu His Ala  
85 90 95

His Val Val Leu Pro Asp Pro Ala Ala Thr His Asp Gly Pro Gln Ser  
100 105 110

Pro Gly Ala Gly Gly Pro Thr Cys Ser Ala Thr Asn Leu Ser Arg Val  
115 120 125

Ala Gly Leu Glu Lys Gln Leu Ala Ile Glu Leu Lys Val Lys Gln Gly  
130 135 140

Ala Glu Asn Met Ile Gln Thr Tyr Ser Asn Gly Ser Thr Lys Asp Arg  
145 150 155 160

Lys Leu Leu Leu Thr Ala Gln Gln Met Leu Gln Asp Ser Lys Thr Lys  
165 170 175

Ile Asp Ile Ile Arg Met Gln Leu Arg Arg Ala Leu Gln Ala Gly Gln  
180 185 190

Leu Glu Asn Gln Ala Ala Pro Asp Asp Thr Gln Gly Ser Pro Asp Leu  
195 200 205

Gly Ala Val Glu Leu Arg Ile Glu Glu Leu Arg His His Phe Arg Val  
210 215 220

Glu His Ala Val Ala Glu Gly Ala Lys Asn Val Leu Arg Leu Leu Ser  
225 230 235 240

Ala Ala Lys Ala Pro Asp Arg Lys Ala Val Ser Glu Ala Gln Glu Lys  
245 250 255

Leu Thr Glu Ser Asn Gln Lys Leu Gly Leu Leu Arg Glu Ala Leu Glu  
260 265 270

Arg Arg Leu Gly Glu Leu Pro Ala Asp His Pro Lys Gly Arg Leu Leu  
275 280 285

Arg Glu Glu Leu Ala Ala Ser Ser Ala Ala Phe Ser Thr Arg Leu  
290 295 300

Ala Gly Pro Phe Pro Ala Thr His Tyr Ser Thr Leu Cys Lys Pro Ala  
305 310 315 320

Pro Leu Thr Gly Thr Leu Glu Val Arg Val Val Gly Cys Arg Asp Leu  
325 330 335

Pro Glu Thr Ile Pro Trp Asn Pro Thr Pro Ser Met Gly Gly Pro Gly  
340 345 350

Thr Pro Asp Ser Arg Pro Pro Phe Leu Ser Arg Pro Ala Arg Gly Leu  
355 360 365

Tyr Ser Arg Ser Gly Ser Leu Ser Gly Arg Ser Ser Leu Lys Ala Glu  
370 375 380

Ala Glu Asn Thr Ser Glu Val Ser Thr Val Leu Lys Leu Asp Asn Thr  
385 390 395 400

Val Val Gly Gln Thr Ser Trp Lys Pro Cys Gly Pro Asn Ala Trp Asp  
405 410 415

Gln Ser Phe Thr Leu Glu Leu Glu Arg Ala Arg Glu Leu Glu Leu Ala  
420 425 430

Val Phe Trp Arg Asp Gln Arg Gly Leu Cys Ala Leu Lys Phe Leu Lys  
435 440 445

Leu Glu Asp Phe Leu Asp Asn Glu Arg His Glu Val Gln Leu Asp Met  
450 455 460

Glu Pro Gln Gly Cys Leu Val Ala Glu Val Thr Phe Arg Asn Pro Val  
465 470 475 480

Ile Glu Arg Ile Pro Arg Leu Arg Arg Gln Lys Lys Ile Phe Ser Lys  
485 490 495

Gln Gln Gly Lys Ala Phe Gln Arg Ala Arg Gln Met Asn Ile Asp Val  
500 505 510

Ala Thr Trp Val Arg Leu Leu Arg Arg Leu Ile Pro Asn Ala Thr Gly  
515 520 525

Thr Gly Thr Phe Ser Pro Gly Ala Ser Pro Gly Ser Glu Ala Arg Thr  
530 535 540

Thr Gly Asp Ile Ser Val Glu Lys Leu Asn Leu Gly Thr Asp Ser Asp  
545 550 555 560

Ser Ser Pro Gln Lys Ser Ser Arg Asp Pro Pro Ser Ser Pro Ser Ser  
565 570 575

Leu Ser Ser Pro Ile Gln Glu Ser Thr Ala Pro Glu Leu Pro Ser Glu  
580 585 590

Thr Gln Glu Thr Pro Gly Pro Ala Leu Cys Ser Pro Leu Arg Lys Ser  
595 600 605

Pro Leu Thr Leu Glu Asp Phe Lys Phe Leu Ala Val Leu Gly Arg Gly  
610 615 620

His Phe Gly Lys Val Leu Leu Ser Glu Phe Arg Pro Ser Gly Glu Leu  
625 630 635 640

Phe Ala Ile Lys Ala Leu Lys Lys Gly Asp Ile Val Ala Arg Asp Glu  
645 650 655

Val Glu Ser Leu Met Cys Glu Lys Arg Ile Leu Ala Ala Val Thr Ser  
660 665 670

Ala Gly His Pro Phe Leu Val Asn Leu Phe Gly Cys Phe Gln Thr Pro  
675 680 685

Glu His Val Cys Phe Val Met Glu Tyr Ser Ala Gly Gly Asp Leu Met  
690 695 700

Leu His Ile His Ser Asp Val Phe Ser Glu Pro Arg Ala Ile Phe Tyr  
705 710 715 720

Ser Ala Cys Val Val Leu Gly Leu Gln Phe Leu His Glu His Lys Ile  
725 730 735

Val Tyr Arg Asp Leu Lys Leu Asp Asn Leu Leu Leu Asp Thr Glu Gly  
740 745 750

Tyr Val Lys Ile Ala Asp Phe Gly Leu Cys Lys Glu Gly Met Gly Tyr  
755 760 765

Gly Asp Arg Thr Ser Thr Phe Cys Gly Thr Pro Glu Phe Leu Ala Pro  
770 775 780

Glu Val Leu Thr Asp Thr Ser Tyr Thr Arg Ala Val Asp Trp Trp Gly  
785 790 795 800

Leu Gly Val Leu Leu Tyr Glu Met Leu Val Gly Glu Ser Pro Phe Pro  
805 810 815

Gly Asp Asp Glu Glu Val Phe Asp Ser Ile Val Asn Asp Glu Val  
820 825 830

Arg Tyr Pro Arg Phe Leu Ser Ala Glu Ala Ile Gly Ile Met Arg Arg  
835 840 845

Leu Leu Arg Arg Asn Pro Glu Arg Arg Leu Gly Ser Ser Glu Arg Asp  
850 855 860

Ala Glu Asp Val Lys Lys Gln Pro Phe Phe Arg Thr Leu Gly Trp Glu  
865 870 875 880

Ala Leu Leu Ala Arg Arg Leu Pro Pro Pro Phe Val Pro Thr Leu Ser  
885 890 895

Gly Arg Thr Asp Val Ser Asn Phe Asp Glu Glu Phe Thr Gly Glu Ala  
900 905 910

Pro Thr Leu Ser Pro Pro Arg Asp Ala Arg Pro Leu Thr Ala Ala Glu  
915 920 925

Gln Ala Ala Phe Leu Asp Phe Asp Phe Val Ala Gly Gly Cys  
930 935 940

<210> 236  
<211> 942  
<212> PRT  
<213> Homo sapiens

<400> 236

Met Ala Ser Asp Ala Val Gln Ser Glu Pro Arg Ser Trp Ser Leu Leu  
1 5 10 15

Glu Gln Leu Gly Leu Ala Gly Ala Asp Leu Ala Ala Pro Gly Val Gln  
20 25 30

Gln Gln Leu Glu Leu Glu Arg Glu Arg Leu Arg Arg Glu Ile Arg Lys  
35 40 45

Glu Leu Lys Leu Lys Glu Gly Ala Glu Asn Leu Arg Arg Ala Thr Thr  
50 55 60

Asp Leu Gly Arg Ser Leu Gly Pro Val Glu Leu Leu Leu Arg Gly Ser  
65 70 75 80

Ser Arg Arg Leu Asp Leu Leu His Gln Gln Leu Gln Glu Leu His Ala  
85 90 95

His Val Val Leu Pro Asp Pro Ala Ala Thr His Asp Gly Pro Gln Ser  
100 105 110

Pro Gly Ala Gly Gly Pro Thr Cys Ser Ala Thr Asn Leu Ser Arg Val  
115 120 125

Ala Gly Leu Glu Lys Gln Leu Ala Ile Glu Leu Lys Val Lys Gln Gly  
130 135 140

Ala Glu Asn Met Ile Gln Thr Tyr Ser Asn Gly Ser Thr Lys Asp Arg  
145 150 155 160

Lys Leu Leu Leu Thr Ala Gln Gln Met Leu Gln Asp Ser Lys Thr Lys  
165 170 175

Ile Asp Ile Ile Arg Met Gln Leu Arg Arg Ala Leu Gln Ala Gly Gln  
180 185 190

Leu Glu Asn Gln Ala Ala Pro Asp Asp Thr Gln Gly Ser Pro Asp Leu  
195 200 205

Gly Ala Val Glu Leu Arg Ile Glu Glu Leu Arg His His Phe Arg Val  
210 215 220

Glu His Ala Val Ala Glu Gly Ala Lys Asn Val Leu Arg Leu Leu Ser  
225 230 235 240

Ala Ala Lys Ala Pro Asp Arg Lys Ala Val Ser Glu Ala Gln Glu Lys  
245 250 255

Leu Thr Glu Ser Asn Gln Lys Leu Gly Leu Leu Arg Glu Ala Leu Glu  
260 265 270

Arg Arg Leu Gly Glu Leu Pro Ala Asp His Pro Lys Gly Arg Leu Leu  
275 280 285

Arg Glu Glu Leu Ala Ala Ser Ser Ala Ala Phe Ser Thr Arg Leu  
290 295 300

Ala Gly Pro Phe Pro Ala Thr His Tyr Ser Thr Leu Cys Lys Pro Ala  
305 310 315 320

Pro Leu Thr Gly Thr Leu Glu Val Arg Val Val Gly Cys Arg Asp Leu  
325 330 335

Pro Glu Thr Ile Pro Trp Asn Pro Thr Pro Ser Met Gly Gly Pro Gly  
340 345 350

Thr Pro Asp Ser Arg Pro Pro Phe Leu Ser Arg Pro Ala Arg Gly Leu  
355 360 365

Tyr Ser Arg Ser Gly Ser Leu Ser Gly Arg Ser Ser Leu Lys Ala Glu  
370 375 380

Ala Glu Asn Thr Ser Glu Val Ser Thr Val Leu Lys Leu Asp Asn Thr  
385 390 395 400

Val Val Gly Gln Thr Ser Trp Lys Pro Cys Gly Pro Asn Ala Trp Asp  
405 410 415

Gln Ser Phe Thr Leu Glu Leu Glu Arg Ala Arg Glu Leu Glu Leu Ala  
420 425 430

Val Phe Trp Arg Asp Gln Arg Gly Leu Cys Ala Leu Lys Phe Leu Lys  
435 440 445

Leu Glu Asp Phe Leu Asp Asn Glu Arg His Glu Val Gln Leu Asp Met  
450 455 460

Glu Pro Gln Gly Cys Leu Val Ala Glu Val Thr Phe Arg Asn Pro Val  
465 470 475 480

Ile Glu Arg Ile Pro Arg Leu Arg Arg Gln Lys Lys Ile Phe Ser Lys  
485 490 495

Gln Gln Gly Lys Ala Phe Gln Arg Ala Arg Gln Met Asn Ile Asp Val  
500 505 510

Ala Thr Trp Val Arg Leu Leu Arg Arg Leu Ile Pro Asn Ala Thr Gly  
515 520 525

Thr Gly Thr Phe Ser Pro Gly Ala Ser Pro Gly Ser Glu Ala Arg Thr  
530 535 540

Thr Gly Asp Ile Ser Val Glu Lys Leu Asn Leu Gly Thr Asp Ser Asp  
545 550 555 560

Ser Ser Pro Gln Lys Ser Ser Arg Asp Pro Pro Ser Ser Pro Ser Ser  
565 570 575

Leu Ser Ser Pro Ile Gln Glu Ser Thr Ala Pro Glu Leu Pro Ser Glu  
580 585 590

Thr Gln Glu Thr Pro Gly Pro Ala Leu Cys Ser Pro Leu Arg Lys Ser  
595 600 605

Pro Leu Thr Leu Glu Asp Phe Lys Phe Leu Ala Val Leu Gly Arg Gly  
610 615 620

His Phe Gly Lys Val Leu Leu Ser Glu Phe Arg Pro Ser Gly Glu Leu  
625 630 635 640

Phe Ala Ile Lys Ala Leu Lys Lys Gly Asp Ile Val Ala Arg Asp Glu  
645 650 655

Val Glu Ser Leu Met Cys Glu Lys Arg Ile Leu Ala Ala Val Thr Ser  
660 665 670

Ala Gly His Pro Phe Leu Val Asn Leu Phe Gly Cys Phe Gln Thr Pro  
675 680 685

Glu His Val Cys Phe Val Met Glu Tyr Ser Ala Gly Gly Asp Leu Met  
690 695 700

Leu His Ile His Ser Asp Val Phe Ser Glu Pro Arg Ala Ile Phe Tyr  
705 710 715 720

Ser Ala Cys Val Val Leu Gly Leu Gln Phe Leu His Glu His Lys Ile  
725 730 735

Val Tyr Arg Asp Leu Lys Leu Asp Asn Leu Leu Leu Asp Thr Glu Gly  
740 745 750

Tyr Val Lys Ile Ala Asp Phe Gly Leu Cys Lys Glu Gly Met Gly Tyr  
755 760 765

Gly Asp Arg Thr Ser Thr Phe Cys Gly Thr Pro Glu Phe Leu Ala Pro  
770 775 780

Glu Val Leu Thr Asp Thr Ser Tyr Thr Arg Ala Val Asp Trp Trp Gly  
785 790 795 800

Leu Gly Val Leu Leu Tyr Glu Met Leu Val Gly Glu Ser Pro Phe Pro  
805 810 815

Gly Asp Asp Glu Glu Val Phe Asp Ser Ile Val Asn Asp Glu Val  
820 825 830

Arg Tyr Pro Arg Phe Leu Ser Ala Glu Ala Ile Gly Ile Met Arg Arg  
835 840 845

Leu Leu Arg Arg Asn Pro Glu Arg Arg Leu Gly Ser Ser Glu Arg Asp  
850 855 860

Ala Glu Asp Val Lys Lys Gln Pro Phe Phe Arg Thr Leu Gly Trp Glu  
865 870 875 880

Ala Leu Leu Ala Arg Arg Leu Pro Pro Pro Phe Val Pro Thr Leu Ser  
885 890 895

Gly Arg Thr Asp Val Ser Asn Phe Asp Glu Glu Phe Thr Gly Glu Ala  
900 905 910

Pro Thr Leu Ser Pro Pro Arg Asp Ala Arg Pro Leu Thr Ala Ala Glu  
915 920 925

Gln Ala Ala Phe Leu Asp Phe Asp Phe Val Ala Gly Gly Cys  
930 935 940

<210> 237  
<211> 452  
<212> PRT  
<213> Homo sapiens

<400> 237

Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala His Gly  
1 5 10 15

Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Ala Leu  
20 25 30

Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala  
35 40 45

Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val  
50 55 60

Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Phe Val Leu Ala  
65 70 75 80

Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln  
85 90 95

Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu  
100 105 110

Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu  
115 120 125

Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala

130	135	140	
Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr			
145	150	155	160
Thr His Gln Val Ala Thr Arg Ser Val Gly Cys Ile Met Gly Glu Leu			
165	170	175	
Leu Asn Gly Ser Pro Leu Phe Pro Gly Lys Asn Asp Ile Glu Gln Leu			
180	185	190	
Cys Tyr Val Leu Arg Ile Leu Gly Thr Pro Asn Pro Gln Val Trp Pro			
195	200	205	
Glu Leu Thr Glu Leu Pro Asp Tyr Asn Lys Ile Ser Phe Lys Glu Gln			
210	215	220	
Val Pro Met Pro Leu Glu Glu Val Leu Pro Asp Val Ser Pro Gln Ala			
225	230	235	240
Leu Asp Leu Leu Gly Gln Phe Leu Leu Tyr Pro Pro His Gln Arg Ile			
245	250	255	
Ala Ala Ser Lys Ala Leu Leu His Gln Tyr Phe Phe Thr Ala Pro Leu			
260	265	270	
Pro Ala His Pro Ser Glu Leu Pro Ile Pro Gln Arg Leu Gly Gly Pro			
275	280	285	
Ala Pro Lys Ala His Pro Gly Pro Pro His Ile His Asp Phe His Val			
290	295	300	
Asp Arg Pro Leu Glu Gly Val Ala Val Glu Pro Arg Ala Asp Ser Ala			
305	310	315	320
Leu His Pro Gly Gly Val Arg Ser Trp Pro Trp Ser Arg Leu Pro Ala			
325	330	335	
Pro Gln Asp His Ser Val His Leu Phe Leu Cys His Leu Pro Gly Phe			
340	345	350	
Thr Leu Gln Gly Leu Pro Met Ala Thr Val Gly Pro His His Thr Leu			
355	360	365	
Pro Leu Ser Pro Cys Glu Gly Trp Ser Arg Gly Arg Gly His Val Pro			
370	375	380	
Ser Gln Glu Tyr Glu Asn Ile Gln Ser Ser Arg Gly Asp Ser Trp Pro			
385	390	395	400
Val Leu Gly Glu Pro Tyr Leu Leu Cys Ala Thr Asp Val Pro Ile Arg			
405	410	415	
Thr Val Ser Ser Ala Ala Ser Gln Gly Leu His Met Gln Asn Asp Asp			
420	425	430	
Ala Cys Leu Gly Ala Ala Ser Pro Glu Cys Cys Leu Leu Val Lys Glu			

435

440

445

Lys Cys Arg Glu  
450

<210> 238

<211> 454

<212> PRT

<213> Homo sapiens

<400> 238

Met Ser Thr Phe Arg Gln Glu Asp Val Glu Asp His Tyr Glu Met Gly  
1 5 10 15

Glu Glu Leu Gly Ser Gly Gln Phe Ala Ile Val Arg Lys Cys Arg Gln  
20 25 30

Lys Gly Thr Gly Lys Glu Tyr Ala Ala Lys Phe Ile Lys Lys Arg Arg  
35 40 45

Leu Ser Ser Ser Arg Arg Gly Val Ser Arg Glu Glu Ile Glu Arg Glu  
50 55 60

Val Asn Ile Leu Arg Glu Ile Arg His Pro Asn Ile Ile Thr Leu His  
65 70 75 80

Asp Ile Phe Glu Asn Lys Thr Asp Val Val Leu Ile Leu Glu Leu Val  
85 90 95

Ser Gly Gly Glu Leu Phe Asp Phe Leu Ala Glu Lys Glu Ser Leu Thr  
100 105 110

Glu Asp Glu Ala Thr Gln Phe Leu Lys Gln Ile Leu Asp Gly Val His  
115 120 125

Tyr Leu His Ser Lys Arg Ile Ala His Phe Asp Leu Lys Pro Glu Asn  
130 135 140

Ile Met Leu Leu Asp Lys Asn Val Pro Asn Pro Arg Ile Lys Leu Ile  
145 150 155 160

Asp Phe Gly Ile Ala His Lys Ile Glu Ala Gly Asn Glu Phe Lys Asn  
165 170 175

Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile Val Asn Tyr Glu  
180 185 190

Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly Val Ile Thr Tyr  
195 200 205

Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Glu Thr Lys Gln Glu  
210 215 220

Thr Leu Thr Asn Ile Ser Ala Val Asn Tyr Asp Phe Asp Glu Glu Tyr  
225 230 235 240

Phe Ser Asn Thr Ser Glu Leu Ala Lys Asp Phe Ile Arg Arg Leu Leu  
245 250 255

Val Lys Asp Pro Lys Arg Arg Met Thr Ile Ala Gln Ser Leu Glu His  
260 265 270

Ser Trp Ile Lys Ala Ile Arg Arg Arg Asn Val Arg Gly Glu Asp Ser  
275 280 285

Gly Arg Lys Pro Glu Arg Arg Arg Leu Lys Thr Thr Arg Leu Lys Glu  
290 295 300

Tyr Thr Ile Lys Ser His Ser Ser Leu Pro Pro Asn Asn Ser Tyr Ala  
305 310 315 320

Asp Phe Glu Arg Phe Ser Lys Val Leu Glu Glu Ala Ala Ala Ala Glu  
325 330 335

Glu Gly Leu Arg Glu Leu Gln Arg Ser Arg Arg Leu Cys His Glu Asp  
340 345 350

Val Glu Ala Leu Ala Ala Ile Tyr Glu Glu Lys Glu Ala Trp Tyr Arg  
355 360 365

Glu Glu Ser Asp Ser Leu Gly Gln Asp Leu Arg Arg Leu Arg Gln Glu  
370 375 380

Leu Leu Lys Thr Glu Ala Leu Lys Arg Gln Ala Gln Glu Ala Lys  
385 390 395 400

Gly Ala Leu Leu Gly Thr Ser Gly Leu Lys Arg Arg Phe Ser Arg Leu  
405 410 415

Glu Asn Arg Tyr Glu Ala Leu Ala Lys Gln Val Ala Ser Glu Met Arg  
420 425 430

Phe Val Gln Asp Leu Val Arg Ala Leu Glu Gln Glu Lys Leu Gln Gly  
435 440 445

Val Glu Cys Gly Leu Arg  
450

<210> 239  
<211> 1065  
<212> PRT  
<213> Homo sapiens

<400> 239

Met Asp Ala Ala Gly Arg Gly Cys His Leu Leu Pro Leu Pro Ala Ala  
1 5 10 15

Arg Gly Pro Ala Arg Ala Pro Ala Ala Ala Ala Ala Ala Ser  
20 25 30

Pro Pro Gly Pro Cys Ser Gly Ala Ala Cys Ala Pro Ser Ala Ala Ala  
35 40 45

Gly Ala Gly Ala Met Asn Pro Ser Ser Ser Ala Gly Glu Glu Lys Gly  
50 55 60

Ala Thr Gly Gly Ser Ser Ser Ser Gly Ser Gly Ala Gly Ser Cys Cys  
65 70 75 80

Leu Gly Ala Glu Gly Gly Ala Asp Pro Arg Gly Ala Gly Ser Ala Ala  
85 90 95

Ala Ala Gly Ala Ala Ala Leu Asp Glu Pro Ala Ala Ala Gly Gln Lys  
100 105 110

Glu Lys Asp Glu Ala Leu Glu Glu Lys Leu Arg Asn Leu Thr Phe Arg  
115 120 125

Lys Gln Val Ser Tyr Arg Lys Ala Ile Ser Arg Ala Gly Leu Gln His  
130 135 140

Leu Ala Pro Ala His Pro Leu Ser Leu Pro Val Ala Asn Gly Pro Ala  
145 150 155 160

Lys Glu Pro Arg Ala Thr Leu Asp Trp Ser Glu Asn Ala Val Asn Gly  
165 170 175

Glu His Leu Trp Leu Glu Thr Asn Val Ser Gly Asp Leu Cys Tyr Leu  
180 185 190

Gly Glu Glu Asn Cys Gln Val Arg Phe Ala Lys Ser Ala Leu Arg Arg  
195 200 205

Lys Cys Ala Val Cys Lys Ile Val Val His Thr Ala Cys Ile Glu Gln  
210 215 220

Leu Glu Lys Ile Asn Phe Arg Cys Lys Pro Thr Phe Arg Glu Gly Gly  
225 230 235 240

Ser Arg Ser Pro Arg Glu Asn Phe Val Arg His His Trp Val His Arg  
245 250 255

Arg Arg Gln Glu Gly Lys Cys Lys Gln Cys Gly Lys Gly Phe Gln Gln  
260 265 270

Lys Phe Ser Phe His Ser Lys Glu Ile Val Ala Ile Ser Cys Ser Trp  
275 280 285

Cys Lys Gln Ala Phe His Asn Lys Val Thr Cys Phe Met Leu His His  
290 295 300

Ile Glu Glu Pro Cys Ser Leu Gly Ala His Ala Ala Val Ile Val Pro  
305 310 315 320

Pro Thr Trp Ile Ile Lys Val Lys Lys Pro Gln Asn Ser Leu Lys Ala  
325 330 335

Ser Asn Arg Lys Lys Lys Arg Thr Ser Phe Lys Arg Lys Ala Ser Lys  
340 345 350

Arg Gly Met Glu Gln Glu Asn Lys Gly Arg Pro Phe Val Ile Lys Pro  
355 360 365

Ile Ser Ser Pro Leu Met Lys Pro Leu Leu Val Phe Val Asn Pro Lys  
370 375 380

Ser Gly Gly Asn Gln Gly Thr Lys Val Leu Gln Met Phe Met Trp Tyr  
385 390 395 400

Leu Asn Pro Arg Gln Val Phe Asp Leu Ser Gln Glu Gly Pro Lys Asp  
405 410 415

Ala Leu Glu Leu Tyr Arg Lys Val Pro Asn Leu Arg Ile Leu Ala Cys  
420 425 430

Gly Gly Asp Gly Thr Val Gly Trp Ile Leu Ser Ile Leu Asp Glu Leu  
435 440 445

Gln Leu Ser Pro Gln Pro Pro Val Gly Val Leu Pro Leu Gly Thr Gly  
450 455 460

Asn Asp Leu Ala Arg Thr Leu Asn Trp Gly Gly Tyr Thr Asp Glu  
465 470 475 480

Pro Val Ser Lys Ile Leu Cys Gln Val Glu Asp Gly Thr Val Val Gln  
485 490 495

Leu Asp Arg Trp Asn Leu His Val Glu Arg Asn Pro Asp Leu Pro Pro  
500 505 510

Glu Glu Leu Glu Asp Gly Val Cys Lys Leu Pro Leu Asn Val Phe Asn  
515 520 525

Asn Tyr Phe Ser Leu Gly Phe Asp Ala His Val Thr Leu Glu Phe His  
530 535 540

Glu Ser Arg Glu Ala Asn Pro Glu Lys Phe Asn Ser Arg Phe Arg Asn  
545 550 555 560

Lys Met Phe Tyr Ala Gly Ala Ala Phe Ser Asp Phe Leu Gln Arg Ser  
565 570 575

Ser Arg Asp Leu Ser Lys His Val Lys Val Val Cys Asp Gly Thr Asp  
580 585 590

Leu Thr Pro Lys Ile Gln Glu Leu Lys Phe Gln Cys Ile Val Phe Leu  
595 600 605

Asn Ile Pro Arg Tyr Cys Ala Gly Thr Met Pro Trp Gly Asn Pro Gly  
610 615 620

Asp His His Asp Phe Glu Pro Gln Arg His Asp Asp Gly Tyr Ile Glu  
625 630 635 640

Val Ile Gly Phe Thr Met Ala Ser Leu Ala Ala Leu Gln Val Gly Gly  
645 650 655

His Gly Glu Arg Leu His Gln Cys Arg Glu Val Met Leu Leu Thr Tyr  
660 665 670

Lys Ser Ile Pro Met Gln Val Asp Gly Glu Pro Cys Arg Leu Ala Pro  
675 680 685

Ala Met Ile Arg Ile Ser Leu Arg Asn Gln Ala Asn Met Val Gln Lys  
690 695 700

Ser Lys Arg Arg Thr Ser Met Pro Leu Leu Asn Asp Pro Gln Ser Val  
705 710 715 720

Pro Asp Arg Leu Arg Ile Arg Val Asn Lys Ile Ser Leu Gln Asp Tyr  
725 730 735

Glu Gly Phe His Tyr Asp Lys Glu Lys Leu Arg Glu Ala Ser Ile Ser  
740 745 750

Asp Trp Leu Arg Thr Ile Ala Gly Glu Leu Val Gln Ser Phe Gly Ala  
755 760 765

Ile Pro Leu Gly Ile Leu Val Val Arg Gly Asp Cys Asp Leu Glu Thr  
770 775 780

Cys Arg Met Tyr Ile Asp Arg Leu Gln Glu Asp Leu Gln Ser Val Ser  
785 790 795 800

Ser Gly Ser Gln Arg Val His Tyr Gln Asp His Glu Thr Ser Phe Pro  
805 810 815

Arg Ala Leu Ser Ala Gln Arg Leu Ser Pro Arg Trp Cys Phe Leu Asp  
820 825 830

Asp Arg Ser Gln Glu His Leu His Phe Val Met Glu Ile Ser Gln Asp  
835 840 845

Glu Ile Phe Ile Leu Asp Pro Asp Met Val Val Ser Gln Pro Ala Gly  
850 855 860

Thr Pro Pro Gly Met Pro Asp Leu Val Val Glu Gln Ala Ser Gly Ile  
865 870 875 880

Ser Asp Trp Trp Asn Pro Ala Leu Arg Lys Arg Met Leu Ser Asp Ser  
885 890 895

Gly Leu Gly Met Ile Ala Pro Tyr Tyr Glu Asp Ser Asp Leu Lys Asp  
900 905 910

Leu Ser His Ser Arg Val Leu Gln Ser Pro Val Ser Ser Glu Asp His  
915 920 925

Ala Ile Leu Gln Ala Val Ile Ala Gly Asp Leu Met Lys Leu Ile Glu  
930 935 940

Ser Tyr Lys Asn Gly Gly Ser Leu Leu Ile Gln Gly Pro Asp His Cys  
945 950 955 960

Ser Leu Leu His Tyr Ala Ala Lys Thr Gly Asn Gly Glu Ile Val Lys  
965 970 975

Tyr Ile Leu Asp His Gly Pro Ser Glu Leu Leu Asp Met Ala Asp Ser  
980 985 990

Glu Thr Gly Glu Thr Ala Leu His Lys Ala Ala Cys Gln Arg Asn Arg  
995 1000 1005

Ala Val Cys Gln Leu Leu Val Asp Ala Gly Ala Ser Leu Arg Lys  
1010 1015 1020

Thr Asp Ser Lys Gly Lys Thr Pro Gln Glu Arg Ala Gln Gln Ala  
1025 1030 1035

Gly Asp Pro Asp Leu Ala Ala Tyr Leu Glu Ser Arg Gln Asn Tyr  
1040 1045 1050

Lys Val Ile Gly His Glu Asp Leu Glu Thr Ala Val  
1055 1060 1065

<210> 240  
<211> 606  
<212> PRT  
<213> Homo sapiens

<400> 240

Met Arg Gly Ala Ala Arg Leu Gly Arg Pro Gly Arg Ser Cys Leu Pro  
1 5 10 15

Gly Pro Ala Leu Arg Ala Ala Ala Pro Ala Leu Leu Leu Ala Arg  
20 25 30

Cys Ala Val Ala Ala Ala Gly Leu Arg Ala Ala Arg Pro Arg  
35 40 45

Pro Pro Glu Leu Gln Ser Ala Ser Ala Gly Pro Ser Val Ser Leu Tyr  
50 55 60

Leu Ser Glu Asp Glu Val Arg Arg Leu Ile Gly Leu Asp Ala Glu Leu  
65 70 75 80

Tyr Tyr Val Arg Asn Asp Leu Ile Ser His Tyr Ala Leu Ser Phe Asn  
85 90 95

Leu Leu Val Pro Ser Glu Thr Asn Phe Leu His Phe Thr Trp His Ala  
100 105 110

Lys Ser Lys Val Glu Tyr Lys Leu Gly Phe Gln Val Asp Asn Val Leu  
115 120 125

Ala Met Asp Met Pro Gln Val Asn Ile Ser Val Gln Gly Glu Val Pro  
130 135 140

Arg Thr Leu Ser Val Phe Arg Val Glu Leu Ser Cys Thr Gly Lys Val

145                    150                    155                    160  
Asp Ser Glu Val Met Ile Leu Met Gln Leu Asn Leu Thr Val Asn Ser  
165                    170                    175  
  
Ser Lys Asn Phe Thr Val Leu Asn Phe Lys Arg Arg Lys Met Cys Tyr  
180                    185                    190  
  
Lys Lys Leu Glu Glu Val Lys Thr Ser Ala Leu Asp Lys Asn Thr Ser  
195                    200                    205  
  
Arg Thr Ile Tyr Asp Pro Val His Ala Ala Pro Thr Thr Ser Thr Arg  
210                    215                    220  
  
Val Phe Tyr Ile Ser Val Gly Val Cys Cys Ala Val Ile Phe Leu Val  
225                    230                    235                    240  
  
Ala Ile Ile Leu Ala Val Leu His Leu His Asn Met Lys Arg Ile Glu  
245                    250                    255  
  
Leu Asp Asp Ser Ile Ser Ala Ser Ser Ser Gln Gly Leu Ser Gln  
260                    265                    270  
  
Pro Ser Thr Gln Thr Thr Gln Tyr Leu Arg Ala Asp Thr Pro Asn Asn  
275                    280                    285  
  
Ala Thr Pro Ile Thr Ser Tyr Pro Thr Leu Arg Ile Glu Lys Asn Asp  
290                    295                    300  
  
Leu Arg Ser Val Thr Leu Leu Glu Ala Lys Gly Lys Val Lys Asp Ile  
305                    310                    315                    320  
  
Ala Ile Ser Arg Glu Arg Ile Thr Leu Lys Asp Val Leu Gln Glu Gly  
325                    330                    335  
  
Thr Phe Gly Arg Ile Phe His Gly Ile Leu Ile Asp Glu Lys Asp Pro  
340                    345                    350  
  
Asn Lys Glu Lys Gln Ala Phe Val Lys Thr Val Lys Asp Gln Ala Ser  
355                    360                    365  
  
Glu Ile Gln Val Thr Met Met Leu Thr Glu Ser Cys Lys Leu Arg Gly  
370                    375                    380  
  
Leu His His Arg Asn Leu Leu Pro Ile Thr His Val Cys Ile Glu Glu  
385                    390                    395                    400  
  
Gly Glu Lys Pro Met Val Ile Leu Pro Tyr Met Asn Trp Gly Asn Leu  
405                    410                    415  
  
Lys Leu Phe Leu Arg Gln Cys Lys Leu Val Glu Ala Asn Asn Pro Gln  
420                    425                    430  
  
Ala Ile Ser Gln Gln Asp Leu Val His Met Ala Ile Gln Ile Ala Cys  
435                    440                    445  
  
Gly Met Ser Tyr Leu Ala Arg Arg Glu Val Ile His Lys Asp Leu Ala

450                    455                    460  
Ala Arg Asn Cys Val Ile Asp Asp Thr Leu Gln Val Lys Ile Thr Asp  
465                    470                    475                    480  
Asn Ala Leu Ser Arg Asp Leu Phe Pro Met Asp Tyr His Cys Leu Gly  
485                    490                    495  
Asp Asn Glu Asn Arg Pro Val Arg Trp Met Ala Leu Glu Ser Leu Val  
500                    505                    510  
Asn Asn Glu Phe Ser Ser Ala Ser Asp Val Trp Ala Phe Gly Val Asn  
515                    520                    525  
Ser Leu Trp Glu Leu Met Thr Leu Gly Gln Thr Pro Tyr Thr Leu Asp  
530                    535                    540  
Ile Asp Pro Phe Glu Met Ala Ala Tyr Leu Lys Asp Gly Tyr Arg Ile  
545                    550                    555                    560  
Ala Gln Pro Ile Thr Cys Pro Asp Glu Leu Phe Ala Val Met Ala Cys  
565                    570                    575  
Cys Trp Ala Leu Asp Pro Glu Glu Arg Pro Arg Phe Gln Gln Leu Val  
580                    585                    590  
Gln Cys Leu Thr Glu Phe His Ala Ala Leu Gly Ala Tyr Val  
595                    600                    605  
<210> 241  
<211> 606  
<212> PRT  
<213> Homo sapiens  
  
<400> 241  
  
Met Arg Gly Ala Ala Arg Leu Gly Arg Pro Gly Arg Ser Cys Leu Pro  
1                    5                            10                    15  
Gly Pro Ala Leu Arg Ala Ala Ala Ala Pro Ala Leu Leu Leu Ala Arg  
20                    25                            30  
Cys Ala Val Ala Ala Ala Ala Gly Leu Arg Ala Ala Ala Arg Pro Arg  
35                    40                            45  
Pro Pro Glu Leu Gln Ser Ala Ser Ala Gly Pro Ser Val Ser Leu Tyr  
50                    55                            60  
Leu Ser Glu Asp Glu Val Arg Arg Leu Ile Gly Leu Asp Ala Glu Leu  
65                    70                            75                    80  
Tyr Tyr Val Arg Asn Asp Leu Ile Ser His Tyr Ala Leu Ser Phe Asn  
85                    90                            95  
Leu Leu Val Pro Ser Glu Thr Asn Phe Leu His Phe Thr Trp His Ala  
100                    105                            110

Lys Ser Lys Val Glu Tyr Lys Leu Gly Phe Gln Val Asp Asn Val Leu  
115 120 125

Ala Met Asp Met Pro Gln Val Asn Ile Ser Val Gln Gly Glu Val Pro  
130 135 140

Arg Thr Leu Ser Val Phe Arg Val Glu Leu Ser Cys Thr Gly Lys Val  
145 150 155 160

Asp Ser Glu Val Met Ile Leu Met Gln Leu Asn Leu Thr Val Asn Ser  
165 170 175

Ser Lys Asn Phe Thr Val Leu Asn Phe Lys Arg Arg Lys Met Cys Tyr  
180 185 190

Lys Lys Leu Glu Glu Val Lys Thr Ser Ala Leu Asp Lys Asn Thr Ser  
195 200 205

Arg Thr Ile Tyr Asp Pro Val His Ala Ala Pro Thr Thr Ser Thr Arg  
210 215 220

Val Phe Tyr Ile Ser Val Gly Val Cys Cys Ala Val Ile Phe Leu Val  
225 230 235 240

Ala Ile Ile Leu Ala Val Leu His Leu His Asn Met Lys Arg Ile Glu  
245 250 255

Leu Asp Asp Ser Ile Ser Ala Ser Ser Ser Gln Gly Leu Ser Gln  
260 265 270

Pro Ser Thr Gln Thr Thr Gln Tyr Leu Arg Ala Asp Thr Pro Asn Asn  
275 280 285

Ala Thr Pro Ile Thr Ser Tyr Pro Thr Leu Arg Ile Glu Lys Asn Asp  
290 295 300

Leu Arg Ser Val Thr Leu Leu Glu Ala Lys Gly Lys Val Lys Asp Ile  
305 310 315 320

Ala Ile Ser Arg Glu Arg Ile Thr Leu Lys Asp Val Leu Gln Glu Gly  
325 330 335

Thr Phe Gly Arg Ile Phe His Gly Ile Leu Ile Asp Glu Lys Asp Pro  
340 345 350

Asn Lys Glu Lys Gln Ala Phe Val Lys Thr Val Lys Asp Gln Ala Ser  
355 360 365

Glu Ile Gln Val Thr Met Met Leu Thr Glu Ser Cys Lys Leu Arg Gly  
370 375 380

Leu His His Arg Asn Leu Leu Pro Ile Thr His Val Cys Ile Glu Glu  
385 390 395 400

Gly Glu Lys Pro Met Val Ile Leu Pro Tyr Met Asn Trp Gly Asn Leu  
405 410 415

Lys Leu Phe Leu Arg Gln Cys Lys Leu Val Glu Ala Asn Asn Pro Gln  
420 425 430

Ala Ile Ser Gln Gln Asp Leu Val His Met Ala Ile Gln Ile Ala Cys  
435 440 445

Gly Met Ser Tyr Leu Ala Arg Arg Glu Val Ile His Lys Asp Leu Ala  
450 455 460

Ala Arg Asn Cys Val Ile Asp Asp Thr Leu Gln Val Lys Ile Thr Asp  
465 470 475 480

Asn Ala Leu Ser Arg Asp Leu Phe Pro Met Asp Tyr His Cys Leu Gly  
485 490 495

Asp Asn Glu Asn Arg Pro Val Arg Trp Met Ala Leu Glu Ser Leu Val  
500 505 510

Asn Asn Glu Phe Ser Ser Ala Ser Asp Val Trp Ala Phe Gly Val Asn  
515 520 525

Ser Leu Trp Glu Leu Met Thr Leu Gly Gln Thr Pro Tyr Thr Leu Asp  
530 535 540

Ile Asp Pro Phe Glu Met Ala Ala Tyr Leu Lys Asp Gly Tyr Arg Ile  
545 550 555 560

Ala Gln Pro Ile Thr Cys Pro Asp Glu Leu Phe Ala Val Met Ala Cys  
565 570 575

Cys Trp Ala Leu Asp Pro Glu Glu Arg Pro Arg Phe Gln Gln Leu Val  
580 585 590

Gln Cys Leu Thr Glu Phe His Ala Ala Leu Gly Ala Tyr Val  
595 600 605

<210> 242  
<211> 625  
<212> PRT  
<213> Homo sapiens

<400> 242

Met Ser Ala Glu Val Arg Leu Arg Arg Leu Gln Gln Leu Val Leu Asp  
1 5 10 15

Pro Gly Phe Leu Gly Leu Glu Pro Leu Leu Asp Leu Leu Gly Val  
20 25 30

His Gln Glu Leu Gly Ala Ser Glu Leu Ala Gln Asp Lys Tyr Val Ala  
35 40 45

Asp Phe Leu Gln Trp Ala Glu Pro Ile Val Val Arg Leu Lys Glu Val  
50 55 60

Arg Leu Gln Arg Asp Asp Phe Glu Ile Leu Lys Val Ile Gly Arg Gly  
65 70 75 80

Ala Phe Ser Glu Val Ala Val Val Lys Met Lys Gln Thr Gly Gln Val  
85 90 95

Tyr Ala Met Lys Ile Met Asn Lys Trp Asp Met Leu Lys Arg Gly Glu  
100 105 110

Val Ser Cys Phe Arg Glu Glu Arg Asp Val Leu Val Asn Gly Asp Arg  
115 120 125

Arg Trp Ile Thr Gln Leu His Phe Ala Phe Gln Asp Glu Asn Tyr Leu  
130 135 140

Tyr Leu Val Met Glu Tyr Tyr Val Gly Gly Asp Leu Leu Thr Leu Leu  
145 150 155 160

Ser Lys Phe Gly Glu Arg Ile Pro Ala Glu Met Ala Arg Phe Tyr Leu  
165 170 175

Ala Glu Ile Val Met Ala Ile Asp Ser Val His Arg Leu Gly Tyr Val  
180 185 190

His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp Arg Cys Gly His  
195 200 205

Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys Leu Arg Ala Asp Gly  
210 215 220

Thr Val Arg Ser Leu Val Ala Val Gly Thr Pro Asp Tyr Leu Ser Pro  
225 230 235 240

Glu Ile Leu Gln Ala Val Gly Gly Pro Gly Thr Gly Ser Tyr Gly  
245 250 255

Pro Glu Cys Asp Trp Trp Ala Leu Gly Val Phe Ala Tyr Glu Met Phe  
260 265 270

Tyr Gly Gln Thr Pro Phe Tyr Ala Asp Ser Thr Ala Glu Thr Tyr Gly  
275 280 285

Lys Ile Val His Tyr Lys Glu His Leu Ser Leu Pro Leu Val Asp Glu  
290 295 300

Gly Val Pro Glu Glu Ala Arg Asp Phe Ile Gln Arg Leu Leu Cys Pro  
305 310 315 320

Pro Glu Thr Arg Leu Gly Arg Gly Ala Gly Asp Phe Arg Thr His  
325 330 335

Pro Phe Phe Phe Gly Leu Asp Trp Asp Gly Leu Arg Asp Ser Val Pro  
340 345 350

Pro Phe Thr Pro Asp Phe Glu Gly Ala Thr Asp Thr Cys Asn Phe Asp  
355 360 365

Leu Val Glu Asp Gly Leu Thr Ala Met Glu Thr Leu Ser Asp Ile Arg  
370 375 380

Glu Gly Ala Pro Leu Gly Val His Leu Pro Phe Val Gly Tyr Ser Tyr  
385 390 395 400

Ser Cys Met Ala Leu Arg Asp Ser Glu Val Pro Gly Pro Thr Pro Met  
405 410 415

Glu Leu Glu Ala Glu Gln Leu Leu Glu Pro His Val Gln Ala Pro Ser  
420 425 430

Leu Glu Pro Ser Val Ser Pro Gln Asp Glu Thr Ala Glu Val Ala Val  
435 440 445

Pro Ala Ala Val Pro Ala Ala Glu Ala Glu Ala Glu Val Thr Leu Arg  
450 455 460

Glu Leu Gln Glu Pro Leu Glu Glu Glu Val Leu Thr Arg Gln Ser Leu  
465 470 475 480

Ser Arg Glu Met Glu Ala Ile Arg Thr Asp Asn Gln Asn Phe Ala Ser  
485 490 495

Gln Leu Arg Glu Ala Glu Ala Arg Asn Arg Asp Leu Glu Ala His Val  
500 505 510

Arg Gln Leu Gln Glu Arg Met Glu Leu Leu Gln Ala Glu Gly Ala Thr  
515 520 525

Ala Val Thr Gly Val Pro Ser Pro Arg Ala Thr Asp Pro Pro Ser His  
530 535 540

Met Ala Pro Arg Pro Trp Leu Trp Ala Ser Ala Arg Trp Trp Gly Gln  
545 550 555 560

Ala Pro Cys Thr Ala Ala Thr Cys Cys Ser Leu Pro Gly Ser Leu Gly  
565 570 575

Leu Ala Tyr Arg Arg Arg Phe Pro Cys Ser Cys Ser Pro Leu Phe Cys  
580 585 590

Leu Val Pro Pro Pro Trp Ala Ala Leu Gly Trp Trp Pro Thr Pro Ala  
595 600 605

Asn Ser Pro Gln Ser Gly Ala Ala Gln Glu Pro Pro Ala Leu Pro Glu  
610 615 620

Pro  
625

<210> 243  
<211> 625  
<212> PRT  
<213> Homo sapiens

<400> 243

Met Ser Ala Glu Val Arg Leu Arg Arg Leu Gln Gln Leu Val Leu Asp

1 5 10 15  
Pro Gly Phe Leu Gly Leu Glu Pro Leu Leu Asp Leu Leu Leu Gly Val  
20 25 30  
His Gln Glu Leu Gly Ala Ser Glu Leu Ala Gln Asp Lys Tyr Val Ala  
35 40 45  
Asp Phe Leu Gln Trp Ala Glu Pro Ile Val Val Arg Leu Lys Glu Val  
50 55 60  
Arg Leu Gln Arg Asp Asp Phe Glu Ile Leu Lys Val Ile Gly Arg Gly  
65 70 75 80  
Ala Phe Ser Glu Val Ala Val Val Lys Met Lys Gln Thr Gly Gln Val  
85 90 95  
Tyr Ala Met Lys Ile Met Asn Lys Trp Asp Met Leu Lys Arg Gly Glu  
100 105 110  
Val Ser Cys Phe Arg Glu Glu Arg Asp Val Leu Val Asn Gly Asp Arg  
115 120 125  
Arg Trp Ile Thr Gln Leu His Phe Ala Phe Gln Asp Glu Asn Tyr Leu  
130 135 140  
Tyr Leu Val Met Glu Tyr Tyr Val Gly Gly Asp Leu Leu Thr Leu Leu  
145 150 155 160  
Ser Lys Phe Gly Glu Arg Ile Pro Ala Glu Met Ala Arg Phe Tyr Leu  
165 170 175  
Ala Glu Ile Val Met Ala Ile Asp Ser Val His Arg Leu Gly Tyr Val  
180 185 190  
His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp Arg Cys Gly His  
195 200 205  
Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys Leu Arg Ala Asp Gly  
210 215 220  
Thr Val Arg Ser Leu Val Ala Val Gly Thr Pro Asp Tyr Leu Ser Pro  
225 230 235 240  
Glu Ile Leu Gln Ala Val Gly Gly Pro Gly Thr Gly Ser Tyr Gly  
245 250 255  
Pro Glu Cys Asp Trp Trp Ala Leu Gly Val Phe Ala Tyr Glu Met Phe  
260 265 270  
Tyr Gly Gln Thr Pro Phe Tyr Ala Asp Ser Thr Ala Glu Thr Tyr Gly  
275 280 285  
Lys Ile Val His Tyr Lys Glu His Leu Ser Leu Pro Leu Val Asp Glu  
290 295 300  
Gly Val Pro Glu Glu Ala Arg Asp Phe Ile Gln Arg Leu Leu Cys Pro

305                    310                    315                    320  
Pro Glu Thr Arg Leu Gly Arg Gly Gly Ala Gly Asp Phe Arg Thr His  
325                    330                    335  
Pro Phe Phe Phe Gly Leu Asp Trp Asp Gly Leu Arg Asp Ser Val Pro  
340                    345                    350  
Pro Phe Thr Pro Asp Phe Glu Gly Ala Thr Asp Thr Cys Asn Phe Asp  
355                    360                    365  
Leu Val Glu Asp Gly Leu Thr Ala Met Glu Thr Leu Ser Asp Ile Arg  
370                    375                    380  
Glu Gly Ala Pro Leu Gly Val His Leu Pro Phe Val Gly Tyr Ser Tyr  
385                    390                    395                    400  
Ser Cys Met Ala Leu Arg Asp Ser Glu Val Pro Gly Pro Thr Pro Met  
405                    410                    415  
Glu Leu Glu Ala Glu Gln Leu Leu Glu Pro His Val Gln Ala Pro Ser  
420                    425                    430  
Leu Glu Pro Ser Val Ser Pro Gln Asp Glu Thr Ala Glu Val Ala Val  
435                    440                    445  
Pro Ala Ala Val Pro Ala Ala Glu Ala Glu Ala Glu Val Thr Leu Arg  
450                    455                    460  
Glu Leu Gln Glu Pro Leu Glu Glu Val Leu Thr Arg Gln Ser Leu  
465                    470                    475                    480  
Ser Arg Glu Met Glu Ala Ile Arg Thr Asp Asn Gln Asn Phe Ala Ser  
485                    490                    495  
Gln Leu Arg Glu Ala Glu Ala Arg Asn Arg Asp Leu Glu Ala His Val  
500                    505                    510  
Arg Gln Leu Gln Glu Arg Met Glu Leu Leu Gln Ala Glu Gly Ala Thr  
515                    520                    525  
Ala Val Thr Gly Val Pro Ser Pro Arg Ala Thr Asp Pro Pro Ser His  
530                    535                    540  
Met Ala Pro Arg Pro Trp Leu Trp Ala Ser Ala Arg Trp Trp Gly Gln  
545                    550                    555                    560  
Ala Pro Cys Thr Ala Ala Thr Cys Cys Ser Leu Pro Gly Ser Leu Gly  
565                    570                    575  
Leu Ala Tyr Arg Arg Arg Phe Pro Cys Ser Cys Ser Pro Leu Phe Cys  
580                    585                    590  
Leu Val Pro Pro Pro Trp Ala Ala Leu Gly Trp Trp Pro Thr Pro Ala  
595                    600                    605  
Asn Ser Pro Gln Ser Gly Ala Ala Gln Glu Pro Pro Ala Leu Pro Glu

610

615

620

Pro  
625

<210> 244  
<211> 624  
<212> PRT  
<213> Homo sapiens

<400> 244

Met Glu Ile Pro Gly Ser Leu Cys Lys Lys Val Lys Leu Ser Asn Asn  
1 5 10 15

Ala Gln Asn Trp Gly Met Gln Arg Ala Thr Asn Val Thr Tyr Gln Ala  
20 25 30

His His Val Ser Arg Asn Lys Arg Gly Gln Val Val Gly Thr Arg Gly  
35 40 45

Gly Phe Arg Gly Cys Thr Val Trp Leu Thr Gly Leu Ser Gly Ala Gly  
50 55 60

Lys Thr Thr Val Ser Met Ala Leu Glu Glu Tyr Leu Val Cys His Gly  
65 70 75 80

Ile Pro Cys Tyr Thr Leu Asp Gly Asp Asn Ile Arg Gln Gly Leu Asn  
85 90 95

Lys Asn Leu Gly Phe Ser Pro Glu Asp Arg Glu Glu Asn Val Arg Arg  
100 105 110

Ile Ala Glu Val Ala Lys Leu Phe Ala Asp Ala Gly Leu Val Cys Ile  
115 120 125

Thr Ser Phe Ile Ser Pro Tyr Thr Gln Asp Arg Asn Asn Ala Arg Gln  
130 135 140

Ile His Glu Gly Ala Ser Leu Pro Phe Phe Glu Val Phe Val Asp Ala  
145 150 155 160

Pro Leu His Val Cys Glu Gln Arg Asp Val Lys Gly Leu Tyr Lys Lys  
165 170 175

Ala Arg Ala Gly Glu Ile Lys Gly Phe Thr Gly Ile Asp Ser Glu Tyr  
180 185 190

Glu Lys Pro Glu Ala Pro Glu Leu Val Leu Lys Thr Asp Ser Cys Asp  
195 200 205

Val Asn Asp Cys Val Gln Gln Val Val Glu Leu Leu Gln Glu Arg Asp  
210 215 220

Ile Val Pro Val Asp Ala Ser Tyr Glu Val Lys Glu Leu Tyr Val Pro  
225 230 235 240

Glu Asn Lys Leu His Leu Ala Lys Thr Asp Ala Glu Thr Leu Pro Ala  
245 250 255

Leu Lys Ile Asn Lys Val Asp Met Gln Trp Val Gln Val Leu Ala Glu  
260 265 270

Gly Trp Ala Thr Pro Leu Asn Gly Phe Met Arg Glu Arg Glu Tyr Leu  
275 280 285

Gln Cys Leu His Phe Asp Cys Leu Leu Asp Gly Gly Val Ile Asn Leu  
290 295 300

Ser Val Pro Ile Val Leu Thr Ala Thr His Glu Asp Lys Glu Arg Leu  
305 310 315 320

Asp Gly Cys Thr Ala Phe Ala Leu Met Tyr Glu Gly Arg Arg Val Ala  
325 330 335

Ile Leu Arg Asn Pro Glu Phe Phe Glu His Arg Lys Glu Glu Arg Cys  
340 345 350

Ala Arg Gln Trp Gly Thr Thr Cys Lys Asn His Pro Tyr Ile Lys Met  
355 360 365

Val Met Glu Gln Gly Asp Trp Leu Ile Gly Gly Asp Leu Gln Val Leu  
370 375 380

Asp Arg Val Tyr Trp Asn Asp Gly Leu Asp Gln Tyr Arg Leu Thr Pro  
385 390 395 400

Thr Glu Leu Lys Gln Lys Phe Lys Asp Met Asn Ala Asp Ala Val Phe  
405 410 415

Ala Phe Gln Leu Arg Asn Pro Val His Asn Gly His Ala Leu Leu Met  
420 425 430

Gln Asp Thr His Lys Gln Leu Leu Glu Arg Gly Tyr Arg Arg Pro Val  
435 440 445

Leu Leu Leu His Pro Leu Gly Gly Trp Thr Lys Asp Asp Asp Val Pro  
450 455 460

Leu Met Trp Arg Met Lys Gln His Ala Ala Val Leu Glu Glu Gly Val  
465 470 475 480

Leu Asn Pro Glu Thr Thr Val Val Ala Ile Phe Pro Ser Pro Met Met  
485 490 495

Tyr Ala Gly Pro Thr Glu Val Gln Trp His Cys Arg Ala Arg Met Val  
500 505 510

Ala Gly Ala Asn Phe Tyr Met Cys Gly Arg Asp Pro Ala Gly Met Pro  
515 520 525

His Pro Glu Thr Gly Lys Asp Leu Tyr Glu Pro Ser His Gly Ala Lys  
530 535 540

Val Leu Thr Met Ala Pro Gly Leu Ile Thr Leu Glu Ile Val Pro Phe  
545 550 555 560

Arg Val Ala Ala Tyr Asn Lys Lys Lys Arg Met Asp Tyr Tyr Asp  
565 570 575

Ser Glu His His Glu Asp Phe Glu Phe Ile Leu Gly Thr Arg Met Arg  
580 585 590

Lys Leu Ala Arg Glu Gly Gln Lys Pro Pro Glu Gly Phe Met Ala Pro  
595 600 605

Lys Ala Trp Thr Val Leu Thr Glu Tyr Tyr Lys Ser Leu Glu Lys Ala  
610 615 620

<210> 245

<211> 556

<212> PRT

<213> Homo sapiens

<400> 245

Met Ala Arg Thr Thr Ser Gln Leu Tyr Asp Ala Val Pro Ile Gln Ser  
1 5 10 15

Ser Val Val Leu Cys Ser Cys Pro Ser Pro Ser Met Val Arg Thr Gln  
20 25 30

Thr Glu Ser Ser Thr Pro Pro Gly Ile Pro Gly Gly Ser Arg Gln Gly  
35 40 45

Pro Ala Met Asp Gly Thr Ala Ala Glu Pro Arg Pro Gly Ala Gly Ser  
50 55 60

Leu Gln His Ala Gln Pro Pro Pro Gln Pro Arg Lys Lys Arg Pro Glu  
65 70 75 80

Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly Ser Phe Ser Thr Val  
85 90 95

Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu Tyr Ala Ile Lys Ile  
100 105 110

Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys Val Pro Tyr Val Thr  
115 120 125

Arg Glu Arg Asp Val Met Ser Arg Leu Asp His Pro Phe Phe Val Lys  
130 135 140

Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu Tyr Phe Gly Leu Ser  
145 150 155 160

Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg Lys Ile Gly Ser  
165 170 175

Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu Ile Val Ser Ala  
180 185 190

Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg Asp Leu Lys Pro  
195 200 205

Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln Ile Thr Asp Phe  
210 215 220

Gly Thr Ala Lys Val Leu Ser Pro Glu Ser Lys Gln Ala Arg Ala Asn  
225 230 235 240

Ser Phe Val Gly Thr Ala Gln Tyr Val Ser Pro Glu Leu Leu Thr Glu  
245 250 255

Lys Ser Ala Cys Lys Ser Ser Asp Leu Trp Ala Leu Gly Cys Ile Ile  
260 265 270

Tyr Gln Leu Val Ala Gly Leu Pro Pro Phe Arg Ala Gly Asn Glu Tyr  
275 280 285

Leu Ile Phe Gln Lys Ile Ile Lys Leu Glu Tyr Asp Phe Pro Glu Lys  
290 295 300

Phe Phe Pro Lys Ala Arg Asp Leu Val Glu Lys Leu Leu Val Leu Asp  
305 310 315 320

Ala Thr Lys Arg Leu Gly Cys Glu Glu Met Glu Gly Tyr Gly Pro Leu  
325 330 335

Lys Ala His Pro Phe Phe Glu Ser Val Thr Trp Glu Asn Leu His Gln  
340 345 350

Gln Thr Pro Pro Lys Leu Thr Ala Tyr Leu Pro Ala Met Ser Glu Asp  
355 360 365

Asp Glu Asp Cys Tyr Gly Asn Tyr Asp Asn Leu Leu Ser Gln Phe Gly  
370 375 380

Cys Met Gln Val Ser Ser Ser Ser His Ser Leu Ser Ala Ser  
385 390 395 400

Asp Thr Gly Leu Pro Gln Arg Ser Gly Ser Asn Ile Glu Gln Tyr Ile  
405 410 415

His Asp Leu Asp Ser Asn Ser Phe Glu Leu Asp Leu Gln Phe Ser Glu  
420 425 430

Asp Glu Lys Arg Leu Leu Leu Glu Lys Gln Ala Gly Gly Asn Pro Trp  
435 440 445

His Gln Phe Val Glu Asn Asn Leu Ile Leu Lys Met Gly Pro Val Asp  
450 455 460

Lys Arg Lys Gly Leu Phe Ala Arg Arg Arg Gln Leu Leu Leu Thr Glu  
465 470 475 480

Gly Pro His Leu Tyr Tyr Val Asp Pro Val Asn Lys Val Leu Lys Gly  
485 490 495

Glu Ile Pro Trp Ser Gln Glu Leu Arg Pro Glu Ala Lys Asn Phe Lys  
500 505 510

Thr Phe Phe Val His Thr Pro Asn Arg Thr Tyr Tyr Leu Met Asp Pro  
515 520 525

Ser Gly Asn Ala His Lys Trp Cys Arg Lys Ile Gln Glu Val Trp Arg  
530 535 540

Gln Arg Tyr Gln Ser His Pro Asp Ala Ala Val Gln  
545 550 555

<210> 246  
<211> 479  
<212> PRT  
<213> Homo sapiens

<400> 246

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp  
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro  
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Lys Cys Gln Leu Met Lys Thr  
50 55 60

Glu Arg Pro Lys Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr  
65 70 75 80

Thr Val Ile Glu Arg Thr Phe His Val Asp Thr Pro Glu Glu Arg Glu  
85 90 95

Glu Trp Thr Glu Ala Ile Gln Ala Val Ala Asp Arg Leu Gln Arg Gln  
100 105 110

Glu Glu Glu Arg Met Asn Cys Ser Pro Thr Ser Gln Ile Asp Asn Ile  
115 120 125

Gly Glu Glu Glu Met Asp Ala Ser Thr Thr His His Lys Arg Lys Thr  
130 135 140

Met Asn Asp Phe Asp Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly  
145 150 155 160

Lys Val Ile Leu Val Arg Glu Lys Ala Ser Gly Lys Tyr Tyr Ala Met  
165 170 175

Lys Ile Leu Lys Lys Glu Val Ile Ile Ala Lys Asp Glu Val Ala His  
180 185 190

Thr Leu Thr Glu Ser Arg Val Leu Lys Asn Thr Arg His Pro Phe Leu

195                    200                    205  
Thr Ser Leu Lys Tyr Ser Phe Gln Thr Lys Asp Arg Leu Cys Phe Val  
210                    215                    220  
  
Met Glu Tyr Val Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg Glu  
225                    230                    235                    240  
  
Arg Val Phe Ser Glu Asp Arg Thr Arg Phe Tyr Gly Ala Glu Ile Val  
245                    250                    255  
  
Ser Ala Leu Asp Tyr Leu His Ser Gly Lys Ile Val Tyr Arg Asp Leu  
260                    265                    270  
  
Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
275                    280                    285  
  
Asp Phe Gly Leu Cys Lys Glu Gly Ile Thr Asp Ala Ala Thr Met Lys  
290                    295                    300  
  
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp  
305                    310                    315                    320  
  
Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met  
325                    330                    335  
  
Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu  
340                    345                    350  
  
Lys Leu Phe Glu Leu Ile Leu Met Glu Asp Ile Lys Phe Pro Arg Thr  
355                    360                    365  
  
Leu Ser Ser Asp Ala Lys Ser Leu Leu Ser Gly Leu Leu Ile Lys Asp  
370                    375                    380  
  
Pro Asn Lys Arg Leu Gly Gly Pro Asp Asp Ala Lys Glu Ile Met  
385                    390                    395                    400  
  
Arg His Ser Phe Phe Ser Gly Val Asn Trp Gln Asp Val Tyr Asp Lys  
405                    410                    415  
  
Lys Leu Val Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp Thr  
420                    425                    430  
  
Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Thr Ile Thr Ile Thr Pro  
435                    440                    445  
  
Pro Glu Lys Tyr Asp Glu Asp Gly Met Asp Cys Met Asp Asn Glu Arg  
450                    455                    460  
  
Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Arg Glu  
465                    470                    475  
  
<210> 247  
<211> 479  
<212> PRT  
<213> Homo sapiens

<400> 247

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp  
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro  
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Lys Cys Gln Leu Met Lys Thr  
50 55 60

Glu Arg Pro Lys Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr  
65 70 75 80

Thr Val Ile Glu Arg Thr Phe His Val Asp Thr Pro Glu Glu Arg Glu  
85 90 95

Glu Trp Thr Glu Ala Ile Gln Ala Val Ala Asp Arg Leu Gln Arg Gln  
100 105 110

Glu Glu Glu Arg Met Asn Cys Ser Pro Thr Ser Gln Ile Asp Asn Ile  
115 120 125

Gly Glu Glu Glu Met Asp Ala Ser Thr Thr His His Lys Arg Lys Thr  
130 135 140

Met Asn Asp Phe Asp Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly  
145 150 155 160

Lys Val Ile Leu Val Arg Glu Lys Ala Ser Gly Lys Tyr Tyr Ala Met  
165 170 175

Lys Ile Leu Lys Lys Glu Val Ile Ile Ala Lys Asp Glu Val Ala His  
180 185 190

Thr Leu Thr Glu Ser Arg Val Leu Lys Asn Thr Arg His Pro Phe Leu  
195 200 205

Thr Ser Leu Lys Tyr Ser Phe Gln Thr Lys Asp Arg Leu Cys Phe Val  
210 215 220

Met Glu Tyr Val Asn Gly Glu Leu Phe Phe His Leu Ser Arg Glu  
225 230 235 240

Arg Val Phe Ser Glu Asp Arg Thr Arg Phe Tyr Gly Ala Glu Ile Val  
245 250 255

Ser Ala Leu Asp Tyr Leu His Ser Gly Lys Ile Val Tyr Arg Asp Leu  
260 265 270

Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
275 280 285

Asp Phe Gly Leu Cys Lys Glu Gly Ile Thr Asp Ala Ala Thr Met Lys  
290 295 300

Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp  
305 310 315 320

Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met  
325 330 335

Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu  
340 345 350

Lys Leu Phe Glu Leu Ile Leu Met Glu Asp Ile Lys Phe Pro Arg Thr  
355 360 365

Leu Ser Ser Asp Ala Lys Ser Leu Leu Ser Gly Leu Leu Ile Lys Asp  
370 375 380

Pro Asn Lys Arg Leu Gly Gly Pro Asp Asp Ala Lys Glu Ile Met  
385 390 395 400

Arg His Ser Phe Phe Ser Gly Val Asn Trp Gln Asp Val Tyr Asp Lys  
405 410 415

Lys Leu Val Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp Thr  
420 425 430

Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Thr Ile Thr Ile Thr Pro  
435 440 445

Pro Glu Lys Tyr Asp Glu Asp Gly Met Asp Cys Met Asp Asn Glu Arg  
450 455 460

Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Arg Glu  
465 470 475

<210> 248  
<211> 479  
<212> PRT  
<213> Homo sapiens

<400> 248

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly  
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp  
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro  
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Lys Cys Gln Leu Met Lys Thr  
50 55 60

Glu Arg Pro Lys Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr  
65 70 75 80

Thr Val Ile Glu Arg Thr Phe His Val Asp Thr Pro Glu Glu Arg Glu  
85 90 95

Glu Trp Thr Glu Ala Ile Gln Ala Val Ala Asp Arg Leu Gln Arg Gln  
100 105 110

Glu Glu Glu Arg Met Asn Cys Ser Pro Thr Ser Gln Ile Asp Asn Ile  
115 120 125

Gly Glu Glu Glu Met Asp Ala Ser Thr Thr His His Lys Arg Lys Thr  
130 135 140

Met Asn Asp Phe Asp Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly  
145 150 155 160

Lys Val Ile Leu Val Arg Glu Lys Ala Ser Gly Lys Tyr Tyr Ala Met  
165 170 175

Lys Ile Leu Lys Lys Glu Val Ile Ile Ala Lys Asp Glu Val Ala His  
180 185 190

Thr Leu Thr Glu Ser Arg Val Leu Lys Asn Thr Arg His Pro Phe Leu  
195 200 205

Thr Ser Leu Lys Tyr Ser Phe Gln Thr Lys Asp Arg Leu Cys Phe Val  
210 215 220

Met Glu Tyr Val Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg Glu  
225 230 235 240

Arg Val Phe Ser Glu Asp Arg Thr Arg Phe Tyr Gly Ala Glu Ile Val  
245 250 255

Ser Ala Leu Asp Tyr Leu His Ser Gly Lys Ile Val Tyr Arg Asp Leu  
260 265 270

Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
275 280 285

Asp Phe Gly Leu Cys Lys Glu Gly Ile Thr Asp Ala Ala Thr Met Lys  
290 295 300

Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp  
305 310 315 320

Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met  
325 330 335

Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu  
340 345 350

Lys Leu Phe Glu Leu Ile Leu Met Glu Asp Ile Lys Phe Pro Arg Thr  
355 360 365

Leu Ser Ser Asp Ala Lys Ser Leu Leu Ser Gly Leu Leu Ile Lys Asp  
370 375 380

Pro Asn Lys Arg Leu Gly Gly Pro Asp Asp Ala Lys Glu Ile Met  
385 390 395 400

Arg His Ser Phe Phe Ser Gly Val Asn Trp Gln Asp Val Tyr Asp Lys  
405 410 415

Lys Leu Val Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp Thr  
420 425 430

Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Thr Ile Thr Ile Thr Pro  
435 440 445

Pro Glu Lys Tyr Asp Glu Asp Gly Met Asp Cys Met Asp Asn Glu Arg  
450 455 460

Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Arg Glu  
465 470 475

<210> 249  
<211> 685  
<212> PRT  
<213> Homo sapiens

<400> 249

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys  
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Asp Ser Lys Lys  
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln  
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His Ser His  
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys  
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Phe Ala Lys Cys  
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile  
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Ile Asp  
115 120 125

Lys Glu Ile Glu Leu His Arg Ile Leu His His Lys His Val Val Gln  
130 135 140

Phe Tyr His Tyr Phe Glu Asp Lys Glu Asn Ile Tyr Ile Leu Leu Glu  
145 150 155 160

Tyr Cys Ser Arg Arg Ser Met Ala His Ile Leu Lys Ala Arg Lys Val

	165	170	175
Leu Thr Glu Pro Glu Val Arg Tyr Tyr Leu Arg Gln Ile Val Ser Gly			
180	185		190
Leu Lys Tyr Leu His Glu Gln Glu Ile Leu His Arg Asp Leu Lys Leu			
195	200		205
Gly Asn Phe Phe Ile Asn Glu Ala Met Glu Leu Lys Val Gly Asp Phe			
210	215		220
Gly Leu Ala Ala Arg Leu Glu Pro Leu Glu His Arg Arg Arg Thr Ile			
225	230	235	240
Cys Gly Thr Pro Asn Tyr Leu Ser Pro Glu Val Leu Asn Lys Gln Gly			
245	250		255
His Gly Cys Glu Ser Asp Ile Trp Ala Leu Gly Cys Val Met Tyr Thr			
260	265		270
Met Leu Leu Gly Arg Pro Pro Phe Glu Thr Thr Asn Leu Lys Glu Thr			
275	280		285
Tyr Arg Cys Ile Arg Glu Ala Arg Tyr Thr Met Pro Ser Ser Leu Leu			
290	295		300
Ala Pro Ala Lys His Leu Ile Ala Ser Met Leu Ser Lys Asn Pro Glu			
305	310	315	320
Asp Arg Pro Ser Leu Asp Asp Ile Ile Arg His Asp Phe Phe Leu Gln			
325	330		335
Gly Phe Thr Pro Asp Arg Leu Ser Ser Ser Cys Cys His Thr Val Pro			
340	345		350
Asp Phe His Leu Ser Ser Pro Ala Lys Asn Phe Phe Lys Lys Ala Ala			
355	360		365
Ala Ala Leu Phe Gly Gly Lys Lys Asp Lys Ala Arg Tyr Ile Asp Thr			
370	375		380
His Asn Arg Val Ser Lys Glu Asp Glu Asp Ile Tyr Lys Leu Arg His			
385	390	395	400
Asp Leu Lys Lys Thr Ser Ile Thr Gln Gln Pro Ser Lys His Arg Thr			
405	410		415
Asp Glu Glu Leu Gln Pro Pro Thr Thr Thr Val Ala Arg Ser Gly Thr			
420	425		430
Pro Ala Val Glu Asn Lys Gln Gln Ile Gly Asp Ala Ile Arg Met Ile			
435	440		445
Val Arg Gly Thr Leu Gly Ser Cys Ser Ser Ser Ser Glu Cys Leu Glu			
450	455		460
Asp Ser Thr Met Gly Ser Val Ala Asp Thr Val Ala Arg Val Leu Arg			

465                  470                  475                  480  
Gly Cys Leu Glu Asn Met Pro Glu Ala Asp Cys Ile Pro Lys Glu Gln  
485                  490                  495  
Leu Ser Thr Ser Phe Gln Trp Val Thr Lys Trp Val Asp Tyr Ser Asn  
500                  505                  510  
Lys Tyr Gly Phe Gly Tyr Gln Leu Ser Asp His Thr Val Gly Val Leu  
515                  520                  525  
Phe Asn Asn Gly Ala His Met Ser Leu Leu Pro Asp Lys Lys Thr Val  
530                  535                  540  
His Tyr Tyr Ala Glu Leu Gly Gln Cys Ser Val Phe Pro Ala Thr Asp  
545                  550                  560  
Ala Pro Glu Gln Phe Ile Ser Gln Val Thr Val Leu Lys Tyr Phe Ser  
565                  570                  575  
His Tyr Met Glu Glu Asn Leu Met Asp Gly Gly Asp Leu Pro Ser Val  
580                  585                  590  
Thr Asp Ile Arg Arg Pro Arg Leu Tyr Leu Leu Gln Trp Leu Lys Ser  
595                  600                  605  
Asp Lys Ala Leu Met Met Leu Phe Asn Asp Gly Thr Phe Gln Val Asn  
610                  615                  620  
Phe Tyr His Asp His Thr Lys Ile Ile Ile Cys Ser Gln Asn Glu Glu  
625                  630                  635                  640  
Tyr Leu Leu Thr Tyr Ile Asn Glu Asp Arg Ile Ser Thr Thr Phe Arg  
645                  650                  655  
Leu Thr Thr Leu Leu Met Ser Gly Cys Ser Ser Glu Leu Lys Asn Arg  
660                  665                  670  
Met Glu Tyr Ala Leu Asn Met Leu Leu Gln Arg Cys Asn  
675                  680                  685  
<210> 250  
<211> 685  
<212> PRT  
<213> Homo sapiens  
  
<400> 250  
  
Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys  
1                  5                  10                  15  
  
Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Gly Asp Ser Lys Lys  
20                  25                  30  
  
Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln  
35                  40                  45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His His Ser His  
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys  
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Gly Phe Ala Lys Cys  
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile  
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Ile Asp  
115 120 125

Lys Glu Ile Glu Leu His Arg Ile Leu His His Lys His Val Val Gln  
130 135 140

Phe Tyr His Tyr Phe Glu Asp Lys Glu Asn Ile Tyr Ile Leu Leu Glu  
145 150 155 160

Tyr Cys Ser Arg Arg Ser Met Ala His Ile Leu Lys Ala Arg Lys Val  
165 170 175

Leu Thr Glu Pro Glu Val Arg Tyr Tyr Leu Arg Gln Ile Val Ser Gly  
180 185 190

Leu Lys Tyr Leu His Glu Gln Glu Ile Leu His Arg Asp Leu Lys Leu  
195 200 205

Gly Asn Phe Phe Ile Asn Glu Ala Met Glu Leu Lys Val Gly Asp Phe  
210 215 220

Gly Leu Ala Ala Arg Leu Glu Pro Leu Glu His Arg Arg Arg Thr Ile  
225 230 235 240

Cys Gly Thr Pro Asn Tyr Leu Ser Pro Glu Val Leu Asn Lys Gln Gly  
245 250 255

His Gly Cys Glu Ser Asp Ile Trp Ala Leu Gly Cys Val Met Tyr Thr  
260 265 270

Met Leu Leu Gly Arg Pro Pro Phe Glu Thr Thr Asn Leu Lys Glu Thr  
275 280 285

Tyr Arg Cys Ile Arg Glu Ala Arg Tyr Thr Met Pro Ser Ser Leu Leu  
290 295 300

Ala Pro Ala Lys His Leu Ile Ala Ser Met Leu Ser Lys Asn Pro Glu  
305 310 315 320

Asp Arg Pro Ser Leu Asp Asp Ile Ile Arg His Asp Phe Phe Leu Gln  
325 330 335

Gly Phe Thr Pro Asp Arg Leu Ser Ser Ser Cys Cys His Thr Val Pro  
340 345 350

Asp Phe His Leu Ser Ser Pro Ala Lys Asn Phe Phe Lys Lys Ala Ala  
355 360 365

Ala Ala Leu Phe Gly Gly Lys Lys Asp Lys Ala Arg Tyr Ile Asp Thr  
370 375 380

His Asn Arg Val Ser Lys Glu Asp Glu Asp Ile Tyr Lys Leu Arg His  
385 390 395 400

Asp Leu Lys Lys Thr Ser Ile Thr Gln Gln Pro Ser Lys His Arg Thr  
405 410 415

Asp Glu Glu Leu Gln Pro Pro Thr Thr Val Ala Arg Ser Gly Thr  
420 425 430

Pro Ala Val Glu Asn Lys Gln Gln Ile Gly Asp Ala Ile Arg Met Ile  
435 440 445

Val Arg Gly Thr Leu Gly Ser Cys Ser Ser Ser Glu Cys Leu Glu  
450 455 460

Asp Ser Thr Met Gly Ser Val Ala Asp Thr Val Ala Arg Val Leu Arg  
465 470 475 480

Gly Cys Leu Glu Asn Met Pro Glu Ala Asp Cys Ile Pro Lys Glu Gln  
485 490 495

Leu Ser Thr Ser Phe Gln Trp Val Thr Lys Trp Val Asp Tyr Ser Asn  
500 505 510

Lys Tyr Gly Phe Gly Tyr Gln Leu Ser Asp His Thr Val Gly Val Leu  
515 520 525

Phe Asn Asn Gly Ala His Met Ser Leu Leu Pro Asp Lys Lys Thr Val  
530 535 540

His Tyr Tyr Ala Glu Leu Gly Gln Cys Ser Val Phe Pro Ala Thr Asp  
545 550 555 560

Ala Pro Glu Gln Phe Ile Ser Gln Val Thr Val Leu Lys Tyr Phe Ser  
565 570 575

His Tyr Met Glu Glu Asn Leu Met Asp Gly Gly Asp Leu Pro Ser Val  
580 585 590

Thr Asp Ile Arg Arg Pro Arg Leu Tyr Leu Leu Gln Trp Leu Lys Ser  
595 600 605

Asp Lys Ala Leu Met Met Leu Phe Asn Asp Gly Thr Phe Gln Val Asn  
610 615 620

Phe Tyr His Asp His Thr Lys Ile Ile Ile Cys Ser Gln Asn Glu Glu  
625 630 635 640

Tyr Leu Leu Thr Tyr Ile Asn Glu Asp Arg Ile Ser Thr Thr Phe Arg  
645 650 655

Leu Thr Thr Leu Leu Met Ser Gly Cys Ser Ser Glu Leu Lys Asn Arg  
660 665 670

Met Glu Tyr Ala Leu Asn Met Leu Leu Gln Arg Cys Asn  
675 680 685

<210> 251  
<211> 685  
<212> PRT  
<213> Homo sapiens

<400> 251

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys  
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Gly Asp Ser Lys Lys  
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln  
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His Ser His  
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys  
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Gly Phe Ala Lys Cys  
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile  
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Ile Asp  
115 120 125

Lys Glu Ile Glu Leu His Arg Ile Leu His His Lys His Val Val Gln  
130 135 140

Phe Tyr His Tyr Phe Glu Asp Lys Glu Asn Ile Tyr Ile Leu Leu Glu  
145 150 155 160

Tyr Cys Ser Arg Arg Ser Met Ala His Ile Leu Lys Ala Arg Lys Val  
165 170 175

Leu Thr Glu Pro Glu Val Arg Tyr Tyr Leu Arg Gln Ile Val Ser Gly  
180 185 190

Leu Lys Tyr Leu His Glu Gln Glu Ile Leu His Arg Asp Leu Lys Leu  
195 200 205

Gly Asn Phe Phe Ile Asn Glu Ala Met Glu Leu Lys Val Gly Asp Phe  
210 215 220

Gly Leu Ala Ala Arg Leu Glu Pro Leu Glu His Arg Arg Arg Thr Ile  
225 230 235 240

Cys Gly Thr Pro Asn Tyr Leu Ser Pro Glu Val Leu Asn Lys Gln Gly  
245 250 255

His Gly Cys Glu Ser Asp Ile Trp Ala Leu Gly Cys Val Met Tyr Thr  
260 265 270

Met Leu Leu Gly Arg Pro Pro Phe Glu Thr Thr Asn Leu Lys Glu Thr  
275 280 285

Tyr Arg Cys Ile Arg Glu Ala Arg Tyr Thr Met Pro Ser Ser Leu Leu  
290 295 300

Ala Pro Ala Lys His Leu Ile Ala Ser Met Leu Ser Lys Asn Pro Glu  
305 310 315 320

Asp Arg Pro Ser Leu Asp Asp Ile Ile Arg His Asp Phe Phe Leu Gln  
325 330 335

Gly Phe Thr Pro Asp Arg Leu Ser Ser Ser Cys Cys His Thr Val Pro  
340 345 350

Asp Phe His Leu Ser Ser Pro Ala Lys Asn Phe Phe Lys Lys Ala Ala  
355 360 365

Ala Ala Leu Phe Gly Gly Lys Lys Asp Lys Ala Arg Tyr Ile Asp Thr  
370 375 380

His Asn Arg Val Ser Lys Glu Asp Glu Asp Ile Tyr Lys Leu Arg His  
385 390 395 400

Asp Leu Lys Lys Thr Ser Ile Thr Gln Gln Pro Ser Lys His Arg Thr  
405 410 415

Asp Glu Glu Leu Gln Pro Pro Thr Thr Val Ala Arg Ser Gly Thr  
420 425 430

Pro Ala Val Glu Asn Lys Gln Ile Gly Asp Ala Ile Arg Met Ile  
435 440 445

Val Arg Gly Thr Leu Gly Ser Cys Ser Ser Ser Glu Cys Leu Glu  
450 455 460

Asp Ser Thr Met Gly Ser Val Ala Asp Thr Val Ala Arg Val Leu Arg  
465 470 475 480

Gly Cys Leu Glu Asn Met Pro Glu Ala Asp Cys Ile Pro Lys Glu Gln  
485 490 495

Leu Ser Thr Ser Phe Gln Trp Val Thr Lys Trp Val Asp Tyr Ser Asn  
500 505 510

Lys Tyr Gly Phe Gly Tyr Gln Leu Ser Asp His Thr Val Gly Val Leu  
515 520 525

Phe Asn Asn Gly Ala His Met Ser Leu Leu Pro Asp Lys Lys Thr Val  
530 535 540

His Tyr Tyr Ala Glu Leu Gly Gln Cys Ser Val Phe Pro Ala Thr Asp  
545 550 555 560

Ala Pro Glu Gln Phe Ile Ser Gln Val Thr Val Leu Lys Tyr Phe Ser  
565 570 575

His Tyr Met Glu Glu Asn Leu Met Asp Gly Gly Asp Leu Pro Ser Val  
580 585 590

Thr Asp Ile Arg Arg Pro Arg Leu Tyr Leu Leu Gln Trp Leu Lys Ser  
595 600 605

Asp Lys Ala Leu Met Met Leu Phe Asn Asp Gly Thr Phe Gln Val Asn  
610 615 620

Phe Tyr His Asp His Thr Lys Ile Ile Ile Cys Ser Gln Asn Glu Glu  
625 630 635 640

Tyr Leu Leu Thr Tyr Ile Asn Glu Asp Arg Ile Ser Thr Thr Phe Arg  
645 650 655

Leu Thr Thr Leu Leu Met Ser Gly Cys Ser Ser Glu Leu Lys Asn Arg  
660 665 670

Met Glu Tyr Ala Leu Asn Met Leu Leu Gln Arg Cys Asn  
675 680 685

<210> 252  
<211> 305  
<212> PRT  
<213> Homo sapiens

<400> 252

Met Gly His Ala Leu Cys Val Cys Ser Arg Gly Thr Val Ile Ile Asp  
1 5 10 15

Asn Lys Arg Tyr Leu Phe Ile Gln Lys Leu Gly Glu Gly Phe Ser  
20 25 30

Tyr Val Asp Leu Val Glu Gly Leu His Asp Gly His Phe Tyr Ala Leu  
35 40 45

Lys Arg Ile Leu Cys His Glu Gln Gln Asp Arg Glu Glu Ala Gln Arg  
50 55 60

Glu Ala Asp Met His Arg Leu Phe Asn His Pro Asn Ile Leu Arg Leu  
65 70 75 80

Val Ala Tyr Cys Leu Arg Glu Arg Gly Ala Lys His Glu Ala Trp Leu  
85 90 95

Leu Leu Pro Phe Phe Lys Arg Gly Thr Leu Trp Asn Glu Ile Glu Arg  
100 105 110

Leu Lys Asp Lys Gly Asn Phe Leu Thr Glu Asp Gln Ile Leu Trp Leu

115                    120                    125  
Leu Leu Gly Ile Cys Arg Gly Leu Glu Ala Ile His Ala Lys Gly Tyr  
130                    135                    140  
  
Ala His Arg Asp Leu Lys Pro Thr Asn Ile Leu Leu Gly Asp Glu Gly  
145                    150                    155                    160  
  
Gln Pro Val Leu Met Asp Leu Gly Ser Met Asn Gln Ala Cys Ile His  
165                    170                    175  
  
Val Glu Gly Ser Arg Gln Ala Leu Thr Leu Gln Asp Trp Ala Ala Gln  
180                    185                    190  
  
Arg Cys Thr Ile Ser Tyr Arg Ala Pro Glu Leu Phe Ser Val Gln Ser  
195                    200                    205  
  
His Cys Val Ile Asp Glu Arg Thr Asp Val Trp Ser Phe Gly Cys Val  
210                    215                    220  
  
Leu Tyr Ala Met Met Phe Gly Glu Gly Pro Tyr Asp Met Val Phe Gln  
225                    230                    235                    240  
  
Lys Gly Asp Ser Val Ala Leu Ala Val Gln Asn Gln Leu Ser Ile Pro  
245                    250                    255  
  
Gln Ser Pro Arg His Ser Ser Ala Leu Arg Gln Leu Leu Asn Ser Met  
260                    265                    270  
  
Met Thr Val Asp Pro His Gln Arg Pro His Ile Pro Leu Leu Leu Ser  
275                    280                    285  
  
Gln Leu Glu Ala Leu Gln Pro Pro Ala Pro Gly Gln His Thr Thr Gln  
290                    295                    300  
  
Ile  
305  
  
<210> 253  
<211> 1115  
<212> PRT  
<213> Homo sapiens  
  
<400> 253  
  
Met Glu Arg Ala Ile Ser Pro Gly Leu Leu Val Arg Ala Leu Leu Leu  
1                    5                    10                    15  
  
Leu Leu Leu Leu Gly Leu Ala Ala Arg Thr Val Ala Ala Gly Arg Ala  
20                    25                    30  
  
Arg Gly Leu Pro Ala Pro Thr Ala Glu Ala Ala Phe Gly Leu Gly Ala  
35                    40                    45  
  
Ala Ala Ala Pro Thr Ser Ala Thr Arg Val Pro Ala Ala Gly Ala Val  
50                    55                    60

Ala Ala Ala Glu Val Thr Val Glu Asp Ala Glu Ala Leu Pro Ala Ala  
65 70 75 80

Ala Gly Glu Gln Glu Pro Arg Gly Pro Glu Pro Asp Asp Glu Thr Glu  
85 90 95

Leu Arg Pro Arg Gly Arg Ser Leu Val Ile Ile Ser Thr Leu Asp Gly  
100 105 110

Arg Ile Ala Ala Leu Asp Pro Glu Asn His Gly Lys Lys Gln Trp Asp  
115 120 125

Leu Asp Val Gly Ser Gly Ser Leu Val Ser Ser Ser Leu Ser Lys Pro  
130 135 140

Glu Val Phe Gly Asn Lys Met Ile Ile Pro Ser Leu Asp Gly Ala Leu  
145 150 155 160

Phe Gln Trp Asp Arg Asp Arg Glu Ser Met Glu Thr Val Pro Phe Thr  
165 170 175

Val Glu Ser Leu Leu Glu Ser Ser Tyr Lys Phe Gly Asp Asp Val Val  
180 185 190

Leu Val Gly Gly Lys Ser Leu Thr Thr Tyr Gly Leu Ser Ala Tyr Ser  
195 200 205

Gly Lys Val Arg Tyr Ile Cys Ser Ala Leu Gly Cys Arg Gln Trp Asp  
210 215 220

Ser Asp Glu Met Glu Gln Glu Glu Asp Ile Leu Leu Leu Gln Arg Thr  
225 230 235 240

Gln Lys Thr Val Arg Ala Val Gly Pro Arg Ser Gly Asn Glu Lys Trp  
245 250 255

Asn Phe Ser Val Gly His Phe Glu Leu Arg Tyr Ile Pro Asp Met Glu  
260 265 270

Thr Arg Ala Gly Phe Ile Glu Ser Thr Phe Lys Pro Asn Glu Asn Thr  
275 280 285

Glu Glu Ser Lys Ile Ile Ser Asp Val Glu Glu Gln Glu Ala Ala Ile  
290 295 300

Met Asp Ile Val Ile Lys Val Ser Val Ala Asp Trp Lys Val Met Ala  
305 310 315 320

Phe Ser Lys Lys Gly Gly His Leu Glu Trp Glu Tyr Gln Phe Cys Thr  
325 330 335

Pro Ile Ala Ser Ala Trp Leu Leu Lys Asp Gly Lys Val Ile Pro Ile  
340 345 350

Ser Leu Phe Asp Asp Thr Ser Tyr Thr Ser Asn Asp Asp Val Leu Glu  
355 360 365

Asp Glu Glu Asp Ile Val Glu Ala Ala Arg Gly Ala Thr Glu Asn Ser  
370 375 380

Val Tyr Leu Gly Met Tyr Arg Gly Gln Leu Tyr Leu Gln Ser Ser Val  
385 390 395 400

Arg Ile Ser Glu Lys Phe Pro Ser Ser Pro Lys Ala Leu Glu Ser Val  
405 410 415

Thr Asn Glu Asn Ala Ile Ile Pro Leu Pro Thr Ile Lys Trp Lys Pro  
420 425 430

Leu Ile His Ser Pro Ser Arg Thr Pro Val Leu Val Gly Ser Asp Glu  
435 440 445

Phe Asp Lys Cys Leu Ser Asn Asp Lys Phe Ser His Glu Glu Tyr Ser  
450 455 460

Asn Gly Ala Leu Ser Ile Leu Gln Tyr Pro Tyr Asp Asn Gly Tyr Tyr  
465 470 475 480

Leu Pro Tyr Tyr Lys Arg Glu Arg Asn Lys Arg Ser Thr Gln Ile Thr  
485 490 495

Val Arg Phe Leu Asp Asn Pro His Tyr Asn Lys Asn Ile Arg Lys Lys  
500 505 510

Asp Pro Val Leu Leu His Trp Trp Lys Glu Ile Val Ala Thr Ile  
515 520 525

Leu Phe Cys Ile Ile Ala Thr Thr Phe Ile Val Arg Arg Leu Phe His  
530 535 540

Pro His Pro His Arg Gln Arg Lys Glu Ser Glu Thr Gln Cys Gln Thr  
545 550 555 560

Glu Asn Lys Tyr Asp Ser Val Ser Gly Glu Ala Asn Asp Ser Ser Trp  
565 570 575

Asn Asp Ile Lys Asn Ser Gly Tyr Ile Ser Arg Tyr Leu Thr Asp Phe  
580 585 590

Glu Pro Ile Gln Cys Leu Gly Arg Gly Phe Gly Val Val Phe Glu  
595 600 605

Ala Lys Asn Lys Val Asp Asp Cys Asn Tyr Ala Ile Lys Arg Ile Arg  
610 615 620

Leu Pro Asn Arg Glu Leu Ala Arg Glu Lys Val Met Arg Glu Val Lys  
625 630 635 640

Ala Leu Ala Lys Leu Glu His Pro Gly Ile Val Arg Tyr Phe Asn Ala  
645 650 655

Trp Leu Glu Ala Pro Pro Glu Lys Trp Gln Glu Lys Met Asp Glu Ile  
660 665 670

Trp Leu Lys Asp Glu Ser Thr Asp Trp Pro Leu Ser Ser Pro Ser Pro  
675 680 685

Met Asp Ala Pro Ser Val Lys Ile Arg Arg Met Asp Pro Phe Ser Thr  
690 695 700

Lys Glu His Ile Glu Ile Ile Ala Pro Ser Pro Gln Arg Ser Arg Ser  
705 710 715 720

Phe Ser Val Gly Ile Ser Cys Asp Gln Thr Ser Ser Ser Glu Ser Gln  
725 730 735

Phe Ser Pro Leu Glu Phe Ser Gly Met Asp His Glu Asp Ile Ser Glu  
740 745 750

Ser Val Asp Ala Ala Tyr Asn Leu Gln Asp Ser Cys Leu Thr Asp Cys  
755 760 765

Asp Val Glu Asp Gly Thr Met Asp Gly Asn Asp Glu Gly His Ser Phe  
770 775 780

Glu Leu Cys Pro Ser Glu Ala Ser Pro Tyr Val Arg Ser Arg Glu Arg  
785 790 795 800

Thr Ser Ser Ser Ile Val Phe Glu Asp Ser Gly Cys Asp Asn Ala Ser  
805 810 815

Ser Lys Glu Glu Pro Lys Thr Asn Arg Leu His Ile Gly Asn His Cys  
820 825 830

Ala Asn Lys Leu Thr Ala Phe Lys Pro Thr Ser Ser Lys Ser Ser Ser  
835 840 845

Glu Ala Thr Leu Ser Ile Ser Pro Pro Arg Pro Thr Thr Leu Ser Leu  
850 855 860

Asp Leu Thr Lys Asn Thr Thr Glu Lys Leu Gln Pro Ser Ser Pro Lys  
865 870 875 880

Val Tyr Leu Tyr Ile Gln Met Gln Leu Cys Arg Lys Glu Asn Leu Lys  
885 890 895

Asp Trp Met Asn Gly Arg Cys Thr Ile Glu Glu Arg Glu Arg Ser Val  
900 905 910

Cys Leu His Ile Phe Leu Gln Ile Ala Glu Ala Val Glu Phe Leu His  
915 920 925

Ser Lys Gly Leu Met His Arg Asp Leu Lys Pro Ser Asn Ile Phe Phe  
930 935 940

Thr Met Asp Asp Val Val Lys Val Gly Asp Phe Gly Leu Val Thr Ala  
945 950 955 960

Met Asp Gln Asp Glu Glu Glu Gln Thr Val Leu Thr Pro Met Pro Ala  
965 970 975

Tyr Ala Arg His Thr Gly Gln Val Gly Thr Lys Leu Tyr Met Ser Pro  
980 985 990

Glu Gln Ile His Gly Asn Ser Tyr Ser His Lys Val Asp Ile Phe Ser  
995 1000 1005

Leu Gly Leu Ile Leu Phe Glu Leu Leu Tyr Pro Phe Ser Thr Gln  
1010 1015 1020

Met Glu Arg Val Arg Thr Leu Thr Asp Val Arg Asn Leu Lys Phe  
1025 1030 1035

Pro Pro Leu Phe Thr Gln Lys Tyr Pro Cys Glu Tyr Val Met Val  
1040 1045 1050

Gln Asp Met Leu Ser Pro Ser Pro Met Glu Arg Pro Glu Ala Ile  
1055 1060 1065

Asn Ile Ile Glu Asn Ala Val Phe Glu Asp Leu Asp Phe Pro Gly  
1070 1075 1080

Lys Thr Val Leu Arg Gln Arg Ser Arg Ser Leu Ser Ser Ser Gly  
1085 1090 1095

Thr Lys His Ser Arg Gln Ser Asn Asn Ser His Ser Pro Leu Pro  
1100 1105 1110

Ser Asn  
1115

<210> 254  
<211> 743  
<212> PRT  
<213> Homo sapiens

<400> 254

Met Gly Ser Arg Ala Gln Lys Ser Ala Gly Asn Ala Glu Leu Trp Glu  
1 5 10 15

Pro Leu Pro Glu Gly Arg Pro Arg Pro Ala Gly Thr Ser Ser Ala Val  
20 25 30

Ser Ala Trp Ala Ser Leu Lys Leu Cys Leu Arg Gly Gly Ser Gly Arg  
35 40 45

Arg Gln Arg Leu Gly Gly Arg Met Gln Pro Glu Glu Gly His Arg  
50 55 60

Leu Ala Ala Gly Ala Ala Val Arg Gly Ala Ala Ala Thr Val Leu Leu  
65 70 75 80

Arg Leu Arg Asp Asp Leu Asn Val Thr Arg Leu Ser His Phe Glu Tyr  
85 90 95

Val Lys Asn Glu Asp Leu Glu Lys Ile Gly Met Gly Arg Pro Gly Gln  
100 105 110

Arg Arg Leu Trp Glu Ala Val Lys Arg Arg Lys Ala Leu Cys Lys Arg  
115 120 125

Lys Ser Trp Met Asn Lys Val Phe Ser Gly Lys Arg Leu Glu Ala Glu  
130 135 140

Phe Pro Pro His His Ser Gln Ser Thr Phe Arg Lys Thr Ser Pro Ala  
145 150 155 160

Pro Gly Gly Pro Ala Gly Glu Gly Pro Leu Gln Ser Leu Thr Cys Leu  
165 170 175

Ile Gly Glu Lys Asp Leu Arg Leu Leu Glu Lys Leu Gly Asp Gly Ser  
180 185 190

Phe Gly Val Val Arg Arg Gly Glu Trp Asp Ala Pro Ser Gly Lys Thr  
195 200 205

Val Ser Pro Pro Gln Pro Ala Phe Phe Thr Gln Lys Pro Thr Tyr Asp  
210 215 220

Pro Val Ser Glu Asp Gln Asp Pro Leu Ser Ser Asp Phe Lys Arg Leu  
225 230 235 240

Gly Leu Arg Lys Pro Gly Leu Pro Arg Gly Leu Trp Leu Ala Lys Pro  
245 250 255

Ser Ala Arg Val Pro Gly Thr Lys Ala Ser Arg Gly Ser Gly Ala Glu  
260 265 270

Val Thr Leu Ile Asp Phe Gly Glu Glu Pro Val Val Pro Ala Leu Arg  
275 280 285

Pro Cys Ala Pro Ser Leu Ala Gln Leu Ala Met Asp Ala Cys Ser Leu  
290 295 300

Leu Asp Glu Thr Pro Pro Gln Ser Pro Thr Arg Ala Leu Pro Arg Pro  
305 310 315 320

Leu His Pro Thr Pro Val Val Asp Trp Asp Ala Arg Pro Leu Pro Pro  
325 330 335

Pro Pro Ala Tyr Asp Asp Val Ala Gln Asp Glu Asp Asp Phe Glu Ile  
340 345 350

Cys Ser Ile Asn Ser Thr Leu Val Gly Ala Gly Val Pro Ala Gly Pro  
355 360 365

Ser Gln Gly Gln Thr Asn Tyr Ala Phe Val Pro Glu Gln Ala Arg Pro  
370 375 380

Pro Pro Pro Leu Glu Asp Asn Leu Phe Leu Pro Pro Gln Gly Gly  
385 390 395 400

Lys Pro Pro Ser Ser Ala Gln Thr Ala Glu Ile Phe Gln Ala Leu Gln  
405 410 415

Gln Glu Cys Met Arg Gln Leu Gln Ala Pro Ala Gly Ser Pro Ala Pro  
420 425 430

Ser Pro Ser Pro Gly Gly Asp Asp Lys Pro Gln Val Pro Pro Arg Val  
435 440 445

Pro Ile Pro Pro Arg Pro Thr Arg Pro His Val Gln Leu Ser Pro Ala  
450 455 460

Pro Pro Gly Glu Glu Thr Ser Gln Trp Pro Gly Pro Ala Ser Pro  
465 470 475 480

Pro Arg Val Pro Pro Arg Glu Pro Leu Ser Pro Gln Gly Ser Arg Thr  
485 490 495

Pro Ser Pro Leu Val Pro Pro Gly Ser Ser Pro Leu Pro Pro Arg Leu  
500 505 510

Ser Ser Ser Pro Gly Lys Thr Met Pro Thr Thr Gln Ser Phe Ala Ser  
515 520 525

Asp Pro Lys Tyr Ala Thr Pro Gln Val Ile Gln Ala Pro Gly Pro Arg  
530 535 540

Ala Gly Pro Cys Ile Leu Pro Ile Val Arg Asp Gly Lys Lys Val Ser  
545 550 555 560

Ser Thr His Tyr Tyr Leu Leu Pro Glu Arg Pro Ser Tyr Leu Glu Arg  
565 570 575

Tyr Gln Arg Phe Leu Arg Glu Ala Gln Ser Pro Glu Glu Pro Thr Pro  
580 585 590

Leu Pro Val Pro Leu Leu Pro Pro Pro Ser Thr Pro Ala Pro Ala  
595 600 605

Ala Pro Thr Ala Thr Val Arg Pro Met Pro Gln Ala Ala Leu Asp Pro  
610 615 620

Lys Ala Asn Phe Ser Thr Asn Asn Ser Asn Pro Gly Ala Arg Pro Pro  
625 630 635 640

Pro Pro Arg Ala Thr Ala Arg Leu Pro Gln Arg Gly Cys Pro Gly Asp  
645 650 655

Gly Pro Glu Ala Gly Arg Pro Ala Asp Lys Ile Gln Met Ala Met Val  
660 665 670

His Gly Val Thr Thr Glu Glu Cys Gln Ala Ala Leu Gln Cys His Gly  
675 680 685

Trp Ser Val Gln Arg Ala Cys Pro Val Ser Glu Gly Gly Ala Ala Leu  
690 695 700

Arg Ala Gly Ser Ala Ala Gln Arg Glu Cys His Lys Val Leu Glu Met  
705 710 715 720

Phe Asp Trp Asn Leu Glu Gln Ala Gly Cys His Leu Leu Gly Ser Trp  
725 730 735

Gly Pro Ala His His Lys Arg  
740

<210> 255  
<211> 1036  
<212> PRT  
<213> Homo sapiens

<400> 255

Met Gln Pro Glu Glu Gly Thr Gly Trp Leu Leu Glu Leu Leu Ser Glu  
1 5 10 15

Val Gln Leu Gln Gln Tyr Phe Leu Arg Leu Arg Asp Asp Leu Asn Val  
20 25 30

Thr Arg Leu Ser His Phe Glu Tyr Val Lys Asn Glu Asp Leu Glu Lys  
35 40 45

Ile Gly Met Gly Arg Pro Gly Gln Arg Arg Leu Trp Glu Ala Val Lys  
50 55 60

Arg Arg Lys Ala Leu Cys Lys Arg Lys Ser Trp Met Ser Lys Val Phe  
65 70 75 80

Ser Gly Lys Arg Leu Glu Ala Glu Phe Pro Pro His His Ser Gln Ser  
85 90 95

Thr Phe Arg Lys Thr Ser Pro Ala Pro Gly Gly Pro Ala Gly Glu Gly  
100 105 110

Pro Leu Gln Ser Leu Thr Cys Leu Ile Gly Glu Lys Asp Leu Arg Leu  
115 120 125

Leu Glu Lys Leu Gly Asp Gly Ser Phe Gly Val Val Arg Arg Gly Glu  
130 135 140

Trp Asp Ala Pro Ser Gly Lys Thr Val Ser Val Ala Val Lys Cys Leu  
145 150 155 160

Lys Pro Asp Val Leu Ser Gln Pro Glu Ala Met Asp Asp Phe Ile Arg  
165 170 175

Glu Val Asn Ala Met His Ser Leu Asp His Arg Asn Leu Ile Arg Leu  
180 185 190

Tyr Gly Val Val Leu Thr Pro Pro Met Lys Met Val Thr Glu Leu Ala  
195 200 205

Pro Leu Gly Ser Leu Leu Asp Arg Leu Arg Lys His Gln Gly His Phe  
210 215 220

Leu Leu Gly Thr Leu Ser Arg Tyr Ala Val Gln Val Ala Glu Gly Met

225                    230                    235                    240  
Gly Tyr Leu Glu Ser Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg  
245                    250                    255  
  
Asn Leu Leu Leu Ala Thr Arg Asp Leu Val Lys Ile Gly Asp Phe Gly  
260                    265                    270  
  
Leu Met Arg Ala Leu Pro Gln Asn Asp Asp His Tyr Val Met Gln Glu  
275                    280                    285  
  
His Arg Lys Val Pro Phe Ala Trp Cys Ala Pro Glu Ser Leu Lys Thr  
290                    295                    300  
  
Arg Thr Phe Ser His Ala Ser Asp Thr Trp Met Phe Gly Val Thr Leu  
305                    310                    320  
  
Trp Glu Met Phe Thr Tyr Gly Gln Glu Pro Trp Ile Gly Leu Asn Gly  
325                    330                    335  
  
Ser Gln Ile Leu His Lys Ile Asp Lys Glu Gly Glu Arg Leu Pro Arg  
340                    345                    350  
  
Pro Glu Asp Cys Pro Gln Asp Ile Tyr Asn Val Met Val Gln Cys Trp  
355                    360                    365  
  
Ala His Lys Pro Glu Asp Arg Pro Thr Phe Val Ala Leu Arg Asp Phe  
370                    375                    380  
  
Leu Leu Glu Ala Gln Pro Thr Asp Met Arg Ala Leu Gln Asp Phe Glu  
385                    390                    395                    400  
  
Glu Pro Asp Lys Leu His Ile Gln Met Asn Asp Val Ile Thr Val Ile  
405                    410                    415  
  
Glu Gly Arg Ala Glu Asn Tyr Trp Trp Arg Gly Gln Asn Thr Arg Thr  
420                    425                    430  
  
Leu Cys Val Gly Pro Phe Pro Arg Asn Val Val Thr Ser Val Ala Gly  
435                    440                    445  
  
Leu Ser Ala Gln Asp Ile Ser Gln Pro Leu Gln Asn Ser Phe Ile His  
450                    455                    460  
  
Thr Gly His Gly Asp Ser Asp Pro Arg His Cys Trp Gly Phe Pro Asp  
465                    470                    475                    480  
  
Arg Ile Asp Glu Leu Tyr Leu Gly Asn Pro Met Asp Pro Pro Asp Leu  
485                    490                    495  
  
Leu Ser Val Glu Leu Ser Thr Ser Arg Pro Pro Gln His Leu Gly Gly  
500                    505                    510  
  
Val Lys Lys Pro Thr Tyr Asp Pro Val Ser Glu Asp Gln Asp Pro Leu  
515                    520                    525  
  
Ser Ser Asp Phe Lys Arg Leu Gly Leu Arg Lys Pro Gly Leu Pro Arg

530 535 540  
Gly Leu Trp Leu Ala Lys Pro Ser Ala Arg Val Pro Gly Thr Lys Ala  
545 550 555 560  
Ser Arg Gly Ser Gly Ala Glu Val Thr Leu Ile Asp Phe Gly Glu Glu  
565 570 575  
Pro Val Val Pro Ala Leu Arg Pro Cys Pro Pro Ser Leu Ala Gln Leu  
580 585 590  
Ala Met Asp Ala Cys Ser Leu Leu Asp Glu Thr Pro Pro Gln Ser Pro  
595 600 605  
Thr Arg Ala Leu Pro Arg Pro Leu His Pro Thr Pro Val Val Asp Trp  
610 615 620  
Asp Ala Arg Pro Leu Pro Pro Pro Ala Tyr Asp Asp Val Ala Gln  
625 630 635 640  
Asp Glu Asp Asp Phe Glu Ile Cys Ser Ile Asn Ser Thr Leu Val Gly  
645 650 655  
Ala Gly Val Pro Ala Gly Pro Ser Gln Gly Gln Thr Asn Tyr Ala Phe  
660 665 670  
Val Pro Glu Gln Ala Arg Pro Pro Pro Leu Glu Asp Asn Leu Phe  
675 680 685  
Leu Pro Pro Gln Gly Gly Lys Pro Pro Ser Ser Ala Gln Thr Ala  
690 695 700  
Glu Ile Phe Gln Ala Leu Gln Gln Glu Cys Met Arg Gln Leu Gln Ala  
705 710 715 720  
Pro Gly Ser Pro Ala Pro Ser Pro Ser Pro Gly Gly Asp Asp Lys Pro  
725 730 735  
Gln Val Pro Pro Arg Val Pro Ile Pro Pro Arg Pro Thr Arg Pro His  
740 745 750  
Val Gln Leu Ser Pro Ala Pro Pro Gly Glu Glu Thr Ser Gln Trp  
755 760 765  
Pro Gly Pro Ala Ser Pro Pro Arg Val Pro Pro Arg Glu Pro Leu Ser  
770 775 780  
Pro Gln Gly Ser Arg Thr Pro Ser Pro Leu Val Pro Pro Gly Ser Ser  
785 790 795 800  
Pro Leu Pro Pro Arg Leu Ser Ser Ser Pro Gly Lys Thr Met Pro Thr  
805 810 815  
Thr Gln Ser Phe Ala Ser Asp Pro Lys Tyr Ala Thr Pro Gln Val Ile  
820 825 830  
Gln Ala Pro Gly Ala Gly Gly Pro Cys Ile Leu Pro Ile Val Arg Asp

835

840

845

Gly Lys Lys Val Ser Ser Thr His Tyr Tyr Leu Leu Pro Glu Arg Pro  
850 855 860

Ser Tyr Leu Glu Arg Tyr Gln Arg Phe Leu Arg Glu Ala Gln Ser Pro  
865 870 875 880

Glu Glu Pro Thr Pro Leu Pro Val Pro Leu Leu Leu Pro Pro Pro Ser  
885 890 895

Thr Pro Ala Pro Ala Ala Pro Thr Ala Thr Val Arg Pro Met Pro Gln  
900 905 910

Ala Ala Leu Asp Pro Lys Ala Asn Phe Ser Thr Asn Asn Ser Asn Pro  
915 920 925

Gly Ala Arg Pro Pro Pro Arg Ala Thr Ala Arg Leu Pro Gln Arg  
930 935 940

Gly Cys Pro Gly Asp Gly Pro Glu Ala Gly Arg Pro Ala Asp Lys Ile  
945 950 955 960

Gln Met Ala Met Val His Gly Val Thr Thr Glu Glu Cys Gln Ala Ala  
965 970 975

Leu Gln Cys His Gly Trp Ser Val Gln Arg Ala Ala Gln Tyr Leu Lys  
980 985 990

Val Glu Gln Leu Phe Gly Leu Gly Leu Arg Pro Arg Gly Glu Cys His  
995 1000 1005

Lys Val Leu Glu Met Phe Asp Trp Asn Leu Glu Gln Ala Gly Cys  
1010 1015 1020

His Leu Leu Gly Ser Trp Gly Pro Ala His His Lys Arg  
1025 1030 1035

<210> 256

<211> 1036

<212> PRT

<213> Homo sapiens

<400> 256

Met Gln Pro Glu Glu Gly Thr Gly Trp Leu Leu Glu Leu Leu Ser Glu  
1 5 10 15

Val Gln Leu Gln Gln Tyr Phe Leu Arg Leu Arg Asp Asp Leu Asn Val  
20 25 30

Thr Arg Leu Ser His Phe Glu Tyr Val Lys Asn Glu Asp Leu Glu Lys  
35 40 45

Ile Gly Met Gly Arg Pro Gly Gln Arg Arg Leu Trp Glu Ala Val Lys  
50 55 60

Arg Arg Lys Ala Leu Cys Lys Arg Lys Ser Trp Met Ser Lys Val Phe  
65 70 75 80

Ser Gly Lys Arg Leu Glu Ala Glu Phe Pro Pro His His Ser Gln Ser  
85 90 95

Thr Phe Arg Lys Thr Ser Pro Ala Pro Gly Gly Pro Ala Gly Glu Gly  
100 105 110

Pro Leu Gln Ser Leu Thr Cys Leu Ile Gly Glu Lys Asp Leu Arg Leu  
115 120 125

Leu Glu Lys Leu Gly Asp Gly Ser Phe Gly Val Val Arg Arg Gly Glu  
130 135 140

Trp Asp Ala Pro Ser Gly Lys Thr Val Ser Val Ala Val Lys Cys Leu  
145 150 155 160

Lys Pro Asp Val Leu Ser Gln Pro Glu Ala Met Asp Asp Phe Ile Arg  
165 170 175

Glu Val Asn Ala Met His Ser Leu Asp His Arg Asn Leu Ile Arg Leu  
180 185 190

Tyr Gly Val Val Leu Thr Pro Pro Met Lys Met Val Thr Glu Leu Ala  
195 200 205

Pro Leu Gly Ser Leu Leu Asp Arg Leu Arg Lys His Gln Gly His Phe  
210 215 220

Leu Leu Gly Thr Leu Ser Arg Tyr Ala Val Gln Val Ala Glu Gly Met  
225 230 235 240

Gly Tyr Leu Glu Ser Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg  
245 250 255

Asn Leu Leu Leu Ala Thr Arg Asp Leu Val Lys Ile Gly Asp Phe Gly  
260 265 270

Leu Met Arg Ala Leu Pro Gln Asn Asp Asp His Tyr Val Met Gln Glu  
275 280 285

His Arg Lys Val Pro Phe Ala Trp Cys Ala Pro Glu Ser Leu Lys Thr  
290 295 300

Arg Thr Phe Ser His Ala Ser Asp Thr Trp Met Phe Gly Val Thr Leu  
305 310 315 320

Trp Glu Met Phe Thr Tyr Gly Gln Glu Pro Trp Ile Gly Leu Asn Gly  
325 330 335

Ser Gln Ile Leu His Lys Ile Asp Lys Glu Gly Glu Arg Leu Pro Arg  
340 345 350

Pro Glu Asp Cys Pro Gln Asp Ile Tyr Asn Val Met Val Gln Cys Trp  
355 360 365

Ala His Lys Pro Glu Asp Arg Pro Thr Phe Val Ala Leu Arg Asp Phe  
370 375 380

Leu Leu Glu Ala Gln Pro Thr Asp Met Arg Ala Leu Gln Asp Phe Glu  
385 390 395 400

Glu Pro Asp Lys Leu His Ile Gln Met Asn Asp Val Ile Thr Val Ile  
405 410 415

Glu Gly Arg Ala Glu Asn Tyr Trp Trp Arg Gly Gln Asn Thr Arg Thr  
420 425 430

Leu Cys Val Gly Pro Phe Pro Arg Asn Val Val Thr Ser Val Ala Gly  
435 440 445

Leu Ser Ala Gln Asp Ile Ser Gln Pro Leu Gln Asn Ser Phe Ile His  
450 455 460

Thr Gly His Gly Asp Ser Asp Pro Arg His Cys Trp Gly Phe Pro Asp  
465 470 475 480

Arg Ile Asp Glu Leu Tyr Leu Gly Asn Pro Met Asp Pro Pro Asp Leu  
485 490 495

Leu Ser Val Glu Leu Ser Thr Ser Arg Pro Pro Gln His Leu Gly Gly  
500 505 510

Val Lys Lys Pro Thr Tyr Asp Pro Val Ser Glu Asp Gln Asp Pro Leu  
515 520 525

Ser Ser Asp Phe Lys Arg Leu Gly Leu Arg Lys Pro Gly Leu Pro Arg  
530 535 540

Gly Leu Trp Leu Ala Lys Pro Ser Ala Arg Val Pro Gly Thr Lys Ala  
545 550 555 560

Ser Arg Gly Ser Gly Ala Glu Val Thr Leu Ile Asp Phe Gly Glu Glu  
565 570 575

Pro Val Val Pro Ala Leu Arg Pro Cys Pro Pro Ser Leu Ala Gln Leu  
580 585 590

Ala Met Asp Ala Cys Ser Leu Leu Asp Glu Thr Pro Pro Gln Ser Pro  
595 600 605

Thr Arg Ala Leu Pro Arg Pro Leu His Pro Thr Pro Val Val Asp Trp  
610 615 620

Asp Ala Arg Pro Leu Pro Pro Pro Ala Tyr Asp Asp Val Ala Gln  
625 630 635 640

Asp Glu Asp Asp Phe Glu Ile Cys Ser Ile Asn Ser Thr Leu Val Gly  
645 650 655

Ala Gly Val Pro Ala Gly Pro Ser Gln Gly Gln Thr Asn Tyr Ala Phe  
660 665 670

Val Pro Glu Gln Ala Arg Pro Pro Pro Pro Leu Glu Asp Asn Leu Phe  
675 680 685

Leu Pro Pro Gln Gly Gly Lys Pro Pro Ser Ser Ala Gln Thr Ala  
690 695 700

Glu Ile Phe Gln Ala Leu Gln Gln Glu Cys Met Arg Gln Leu Gln Ala  
705 710 715 720

Pro Gly Ser Pro Ala Pro Ser Pro Ser Pro Gly Gly Asp Asp Lys Pro  
725 730 735

Gln Val Pro Pro Arg Val Pro Ile Pro Pro Arg Pro Thr Arg Pro His  
740 745 750

Val Gln Leu Ser Pro Ala Pro Pro Gly Glu Glu Glu Thr Ser Gln Trp  
755 760 765

Pro Gly Pro Ala Ser Pro Pro Arg Val Pro Pro Arg Glu Pro Leu Ser  
770 775 780

Pro Gln Gly Ser Arg Thr Pro Ser Pro Leu Val Pro Pro Gly Ser Ser  
785 790 795 800

Pro Leu Pro Pro Arg Leu Ser Ser Ser Pro Gly Lys Thr Met Pro Thr  
805 810 815

Thr Gln Ser Phe Ala Ser Asp Pro Lys Tyr Ala Thr Pro Gln Val Ile  
820 825 830

Gln Ala Pro Gly Ala Gly Gly Pro Cys Ile Leu Pro Ile Val Arg Asp  
835 840 845

Gly Lys Lys Val Ser Ser Thr His Tyr Tyr Leu Leu Pro Glu Arg Pro  
850 855 860

Ser Tyr Leu Glu Arg Tyr Gln Arg Phe Leu Arg Glu Ala Gln Ser Pro  
865 870 875 880

Glu Glu Pro Thr Pro Leu Pro Val Pro Leu Leu Leu Pro Pro Pro Ser  
885 890 895

Thr Pro Ala Pro Ala Ala Pro Thr Ala Thr Val Arg Pro Met Pro Gln  
900 905 910

Ala Ala Leu Asp Pro Lys Ala Asn Phe Ser Thr Asn Asn Ser Asn Pro  
915 920 925

Gly Ala Arg Pro Pro Pro Pro Arg Ala Thr Ala Arg Leu Pro Gln Arg  
930 935 940

Gly Cys Pro Gly Asp Gly Pro Glu Ala Gly Arg Pro Ala Asp Lys Ile  
945 950 955 960

Gln Met Ala Met Val His Gly Val Thr Thr Glu Glu Cys Gln Ala Ala  
965 970 975

Leu Gln Cys His Gly Trp Ser Val Gln Arg Ala Ala Gln Tyr Leu Lys  
980 985 990

Val Glu Gln Leu Phe Gly Leu Gly Leu Arg Pro Arg Gly Glu Cys His  
995 1000 1005

Lys Val Leu Glu Met Phe Asp Trp Asn Leu Glu Gln Ala Gly Cys  
1010 1015 1020

His Leu Leu Gly Ser Trp Gly Pro Ala His His Lys Arg  
1025 1030 1035

<210> 257  
<211> 424  
<212> PRT  
<213> Homo sapiens

<400> 257

Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser  
1 5 10 15

Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg  
20 25 30

Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr  
35 40 45

Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln  
50 55 60

Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Ile Ile  
65 70 75 80

Glu Lys Gln Ala Gly His Ser Arg Ser Arg Val Phe Arg Glu Val Glu  
85 90 95

Thr Leu Tyr Gln Cys Gln Gly Asn Lys Asn Ile Leu Glu Leu Ile Glu  
100 105 110

Phe Phe Glu Asp Asp Thr Arg Phe Tyr Leu Val Phe Glu Lys Leu Gln  
115 120 125

Gly Gly Ser Ile Leu Ala His Ile Gln Lys Gln Lys His Phe Asn Glu  
130 135 140

Arg Glu Ala Ser Arg Val Val Arg Asp Val Ala Ala Ala Leu Asp Phe  
145 150 155 160

Leu His Thr Lys Gly Ile Ala His Arg Asp Leu Lys Pro Glu Asn Ile  
165 170 175

Leu Cys Glu Ser Pro Glu Lys Val Ser Pro Val Lys Ile Cys Asp Phe  
180 185 190

Asp Leu Gly Ser Gly Met Lys Leu Asn Asn Ser Cys Thr Pro Ile Thr  
195 200 205

Thr Pro Glu Leu Thr Thr Pro Cys Gly Ser Ala Glu Tyr Met Ala Pro  
210 215 220

Glu Val Val Glu Val Phe Thr Asp Gln Ala Thr Phe Tyr Asp Lys Arg  
225 230 235 240

Cys Asp Leu Trp Ser Leu Gly Val Val Leu Tyr Ile Met Leu Ser Gly  
245 250 255

Tyr Pro Pro Phe Val Gly His Cys Gly Ala Asp Cys Gly Trp Asp Arg  
260 265 270

Gly Glu Val Cys Arg Val Cys Gln Asn Lys Leu Phe Glu Ser Ile Gln  
275 280 285

Glu Gly Lys Tyr Glu Phe Pro Asp Lys Asp Trp Ala His Ile Ser Ser  
290 295 300

Glu Ala Lys Asp Leu Ile Ser Lys Leu Leu Val Arg Asp Ala Lys Gln  
305 310 315 320

Arg Leu Ser Ala Ala Gln Val Leu Gln His Pro Trp Val Gln Gly Gln  
325 330 335

Ala Pro Glu Lys Gly Leu Pro Thr Pro Gln Val Leu Gln Arg Asn Ser  
340 345 350

Ser Thr Met Asp Leu Thr Leu Phe Ala Ala Glu Ala Ile Ala Leu Asn  
355 360 365

Arg Gln Leu Ser Gln His Glu Glu Asn Glu Leu Ala Glu Glu Pro Glu  
370 375 380

Ala Leu Ala Asp Gly Leu Cys Ser Met Lys Leu Ser Pro Pro Cys Lys  
385 390 395 400

Ser Arg Leu Ala Arg Arg Ala Leu Ala Gln Ala Gly Arg Gly Glu  
405 410 415

Asp Arg Ser Pro Pro Thr Ala Leu  
420

<210> 258  
<211> 424  
<212> PRT  
<213> Homo sapiens

<400> 258

Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser  
1 5 10 15

Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg  
20 25 30

Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr

35	40	45
Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln		
50	55	60
Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Ile Ile		
65	70	75
80		
Glu Lys Gln Ala Gly His Ser Arg Ser Arg Val Phe Arg Glu Val Glu		
85	90	95
Thr Leu Tyr Gln Cys Gln Gly Asn Lys Asn Ile Leu Glu Leu Ile Glu		
100	105	110
Phe Phe Glu Asp Asp Thr Arg Phe Tyr Leu Val Phe Glu Lys Leu Gln		
115	120	125
Gly Gly Ser Ile Leu Ala His Ile Gln Lys Gln Lys His Phe Asn Glu		
130	135	140
Arg Glu Ala Ser Arg Val Val Arg Asp Val Ala Ala Ala Leu Asp Phe		
145	150	155
160		
Leu His Thr Lys Gly Ile Ala His Arg Asp Leu Lys Pro Glu Asn Ile		
165	170	175
Leu Cys Glu Ser Pro Glu Lys Val Ser Pro Val Lys Ile Cys Asp Phe		
180	185	190
Asp Leu Gly Ser Gly Met Lys Leu Asn Asn Ser Cys Thr Pro Ile Thr		
195	200	205
Thr Pro Glu Leu Thr Thr Pro Cys Gly Ser Ala Glu Tyr Met Ala Pro		
210	215	220
Glu Val Val Glu Val Phe Thr Asp Gln Ala Thr Phe Tyr Asp Lys Arg		
225	230	235
240		
Cys Asp Leu Trp Ser Leu Gly Val Val Leu Tyr Ile Met Leu Ser Gly		
245	250	255
Tyr Pro Pro Phe Val Gly His Cys Gly Ala Asp Cys Gly Trp Asp Arg		
260	265	270
Gly Glu Val Cys Arg Val Cys Gln Asn Lys Leu Phe Glu Ser Ile Gln		
275	280	285
Glu Gly Lys Tyr Glu Phe Pro Asp Lys Asp Trp Ala His Ile Ser Ser		
290	295	300
Glu Ala Lys Asp Leu Ile Ser Lys Leu Leu Val Arg Asp Ala Lys Gln		
305	310	315
320		
Arg Leu Ser Ala Ala Gln Val Leu Gln His Pro Trp Val Gln Gly Gln		
325	330	335
Ala Pro Glu Lys Gly Leu Pro Thr Pro Gln Val Leu Gln Arg Asn Ser		

340 345 350

Ser Thr Met Asp Leu Thr Leu Phe Ala Ala Glu Ala Ile Ala Leu Asn  
355 360 365

Arg Gln Leu Ser Gln His Glu Glu Asn Glu Leu Ala Glu Glu Pro Glu  
370 375 380

Ala Leu Ala Asp Gly Leu Cys Ser Met Lys Leu Ser Pro Pro Cys Lys  
385 390 395 400

Ser Arg Leu Ala Arg Arg Ala Leu Ala Gln Ala Gly Arg Gly Glu  
405 410 415

Asp Arg Ser Pro Pro Thr Ala Leu  
420

<210> 259

<211> 424

<212> PRT

<213> Homo sapiens

<400> 259

Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser  
1 5 10 15

Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg  
20 25 30

Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr  
35 40 45

Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln  
50 55 60

Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Ile Ile  
65 70 75 80

Glu Lys Gln Ala Gly His Ser Arg Ser Arg Val Phe Arg Glu Val Glu  
85 90 95

Thr Leu Tyr Gln Cys Gln Gly Asn Lys Asn Ile Leu Glu Leu Ile Glu  
100 105 110

Phe Phe Glu Asp Asp Thr Arg Phe Tyr Leu Val Phe Glu Lys Leu Gln  
115 120 125

Gly Gly Ser Ile Leu Ala His Ile Gln Lys Gln Lys His Phe Asn Glu  
130 135 140

Arg Glu Ala Ser Arg Val Val Arg Asp Val Ala Ala Ala Leu Asp Phe  
145 150 155 160

Leu His Thr Lys Gly Ile Ala His Arg Asp Leu Lys Pro Glu Asn Ile  
165 170 175

Leu Cys Glu Ser Pro Glu Lys Val Ser Pro Val Lys Ile Cys Asp Phe  
180 185 190

Asp Leu Gly Ser Gly Met Lys Leu Asn Asn Ser Cys Thr Pro Ile Thr  
195 200 205

Thr Pro Glu Leu Thr Thr Pro Cys Gly Ser Ala Glu Tyr Met Ala Pro  
210 215 220

Glu Val Val Glu Val Phe Thr Asp Gln Ala Thr Phe Tyr Asp Lys Arg  
225 230 235 240

Cys Asp Leu Trp Ser Leu Gly Val Val Leu Tyr Ile Met Leu Ser Gly  
245 250 255

Tyr Pro Pro Phe Val Gly His Cys Gly Ala Asp Cys Gly Trp Asp Arg  
260 265 270

Gly Glu Val Cys Arg Val Cys Gln Asn Lys Leu Phe Glu Ser Ile Gln  
275 280 285

Glu Gly Lys Tyr Glu Phe Pro Asp Lys Asp Trp Ala His Ile Ser Ser  
290 295 300

Glu Ala Lys Asp Leu Ile Ser Lys Leu Leu Val Arg Asp Ala Lys Gln  
305 310 315 320

Arg Leu Ser Ala Ala Gln Val Leu Gln His Pro Trp Val Gln Gly Gln  
325 330 335

Ala Pro Glu Lys Gly Leu Pro Thr Pro Gln Val Leu Gln Arg Asn Ser  
340 345 350

Ser Thr Met Asp Leu Thr Leu Phe Ala Ala Glu Ala Ile Ala Leu Asn  
355 360 365

Arg Gln Leu Ser Gln His Glu Glu Asn Glu Leu Ala Glu Glu Pro Glu  
370 375 380

Ala Leu Ala Asp Gly Leu Cys Ser Met Lys Leu Ser Pro Pro Cys Lys  
385 390 395 400

Ser Arg Leu Ala Arg Arg Arg Ala Leu Ala Gln Ala Gly Arg Gly Glu  
405 410 415

Asp Arg Ser Pro Pro Thr Ala Leu  
420

<210> 260  
<211> 898  
<212> PRT  
<213> Homo sapiens

<400> 260

Met Arg Lys Gly Val Leu Lys Asp Pro Glu Ile Ala Asp Leu Phe Tyr  
1 5 10 15

Lys Asp Asp Pro Glu Glu Leu Phe Ile Gly Leu His Glu Ile Gly His  
20 25 30

Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu  
35 40 45

Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu  
50 55 60

Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys  
65 70 75 80

His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr  
85 90 95

Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu  
100 105 110

Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr  
115 120 125

His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile  
130 135 140

His Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln  
145 150 155 160

Val Lys Leu Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn  
165 170 175

Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala  
180 185 190

Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Ile Trp Ser Leu Gly  
195 200 205

Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met  
210 215 220

Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn Asp Ser Pro Thr  
225 230 235 240

Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr  
245 250 255

Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu  
260 265 270

Arg His Asp Phe Val Arg Arg Asp Arg Pro Leu Arg Val Leu Ile Asp  
275 280 285

Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu Asp Asn Leu Gln  
290 295 300

Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Thr Arg Asn Gly Pro  
305 310 315 320

Leu Asn Glu Ser Gln Glu Asp Glu Glu Asp Ser Glu His Gly Thr Ser  
325 330 335

Leu Asn Arg Glu Met Asp Ser Leu Gly Ser Asn His Ser Ile Pro Ser  
340 345 350

Met Ser Val Thr Trp Asn Gln Pro Glu Gln Gly Asn Gly Gln Pro Gly  
355 360 365

Gln Gln Pro Phe His Ser Lys His Val Arg Val Met Met His Asp Asp  
370 375 380

Glu Ser Thr Ile Asn Ser Ser Ser Val Val His Lys Lys Asp His  
385 390 395 400

Val Phe Ile Arg Asp Glu Ala Gly His Gly Asp Pro Arg Pro Glu Pro  
405 410 415

Arg Pro Thr Gln Ser Val Gln Ser Gln Ala Leu His Tyr Arg Asn Arg  
420 425 430

Glu Arg Phe Ala Thr Ile Lys Ser Ala Ser Leu Val Thr Arg Gln Ile  
435 440 445

His Glu His Glu Gln Glu Asn Glu Leu Arg Glu Gln Met Ser Gly Tyr  
450 455 460

Lys Arg Met Arg Arg Gln His Gln Lys Gln Leu Ile Ala Leu Glu Asn  
465 470 475 480

Lys Leu Lys Ala Glu Met Asp Glu His Arg Leu Lys Leu Gln Lys Glu  
485 490 495

Val Glu Thr His Ala Asn Asn Ser Ser Ile Glu Leu Glu Lys Leu Ala  
500 505 510

Lys Lys Gln Val Ala Ile Ile Glu Lys Glu Ala Lys Val Ala Ala Ala  
515 520 525

Asp Glu Lys Lys Phe Gln Gln Gln Ile Leu Ala Gln Gln Lys Lys Asp  
530 535 540

Leu Thr Thr Phe Leu Glu Ser Gln Lys Lys Gln Tyr Lys Ile Cys Lys  
545 550 555 560

Glu Lys Ile Lys Glu Glu Met Asn Glu Asp His Ser Thr Pro Lys Lys  
565 570 575

Glu Lys Gln Glu Arg Ile Ser Lys His Lys Glu Asn Leu Gln His Thr  
580 585 590

Gln Ala Glu Glu Ala His Leu Leu Thr Gln Gln Arg Leu Tyr Tyr  
595 600 605

Asp Lys Asn Cys Arg Phe Phe Lys Arg Lys Ile Met Ile Lys Arg His  
610 615 620

Glu Val Glu Gln Gln Asn Ile Arg Glu Glu Leu Asn Lys Lys Arg Thr  
625 630 635 640

Gln Lys Glu Met Glu His Ala Met Leu Ile Arg His Asp Glu Ser Thr  
645 650 655

Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg Met  
660 665 670

Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu Glu  
675 680 685

Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met Glu  
690 695 700

Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile Lys  
705 710 715 720

Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys Ala  
725 730 735

Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Glu His Lys Thr  
740 745 750

Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile Leu  
755 760 765

Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln Ala  
770 775 780

Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg Leu  
785 790 795 800

Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys Ile  
805 810 815

Lys Met Gln Thr Glu Ala Gln His Glu Arg Glu Leu Gln Lys Leu Glu  
820 825 830

Gln Arg Val Ser Leu Arg Arg Ala His Leu Glu Gln Lys Ile Glu Glu  
835 840 845

Glu Leu Ala Ala Leu Gln Lys Glu Arg Ser Glu Arg Ile Lys Asn Leu  
850 855 860

Leu Glu Arg Gln Glu Arg Glu Ile Glu Thr Phe Asp Met Glu Ser Leu  
865 870 875 880

Arg Met Gly Phe Gly Asn Leu Val Thr Leu Asp Phe Pro Lys Glu Asp  
885 890 895

Tyr Arg

<210> 261  
<211> 749

<212> PRT

<213> Homo sapiens

<400> 261

Met Glu Glu Leu His Ser Leu Asp Pro Arg Arg Gln Glu Leu Leu Glu  
1 5 10 15

Ala Arg Phe Thr Gly Val Gly Val Ser Lys Gly Pro Leu Asn Ser Glu  
20 25 30

Ser Ser Asn Gln Ser Leu Cys Ser Val Gly Ser Leu Ser Asp Lys Glu  
35 40 45

Val Glu Thr Pro Glu Lys Lys Gln Asn Asp Gln Arg Asn Arg Lys Arg  
50 55 60

Lys Ala Glu Pro Tyr Glu Thr Ser Gln Gly Lys Gly Thr Pro Arg Gly  
65 70 75 80

His Lys Ile Ser Asp Tyr Phe Glu Phe Ala Gly Gly Ser Ala Pro Gly  
85 90 95

Thr Ser Pro Gly Arg Ser Val Pro Pro Val Ala Arg Ser Ser Pro Gln  
100 105 110

His Ser Leu Ser Asn Pro Leu Pro Arg Arg Val Glu Gln Pro Leu Tyr  
115 120 125

Gly Leu Asp Gly Ser Ala Ala Lys Glu Ala Thr Glu Glu Gln Ser Ala  
130 135 140

Leu Pro Thr Leu Met Ser Val Met Leu Ala Lys Pro Arg Leu Asp Thr  
145 150 155 160

Glu Gln Leu Ala Gln Arg Gly Ala Gly Leu Cys Phe Thr Phe Val Ser  
165 170 175

Ala Gln Gln Asn Ser Pro Ser Ser Thr Gly Ser Gly Asn Thr Glu His  
180 185 190

Ser Cys Ser Ser Gln Lys Gln Ile Ser Ile Gln His Arg Arg Thr Gln  
195 200 205

Ser Asp Leu Thr Ile Glu Lys Ile Ser Ala Leu Glu Asn Ser Lys Asn  
210 215 220

Ser Asp Leu Glu Lys Lys Glu Gly Arg Ile Asp Asp Leu Leu Arg Ala  
225 230 235 240

Asn Cys Asp Leu Arg Arg Gln Ile Asp Glu Gln Gln Lys Met Leu Glu  
245 250 255

Lys Tyr Lys Glu Arg Leu Asn Arg Cys Val Thr Met Ser Lys Lys Leu  
260 265 270

Leu Ile Glu Lys Ser Lys Gln Glu Lys Met Ala Cys Arg Asp Lys Ser

275                    280                    285

Met Gln Asp Arg Leu Arg Leu Gly His Phe Thr Thr Val Arg His Gly  
290                    295                    300

Ala Ser Phe Thr Glu Gln Trp Thr Asp Gly Tyr Ala Phe Gln Asn Leu  
305                    310                    315                    320

Ile Lys Gln Gln Glu Arg Ile Asn Ser Gln Arg Glu Glu Ile Glu Arg  
325                    330                    335

Gln Arg Lys Met Leu Ala Lys Arg Lys Pro Pro Ala Met Gly Gln Ala  
340                    345                    350

Pro Pro Ala Thr Asn Glu Gln Lys Gln Arg Lys Ser Lys Thr Asn Gly  
355                    360                    365

Ala Glu Asn Glu Thr Leu Thr Leu Ala Glu Tyr His Glu Gln Glu Glu  
370                    375                    380

Ile Phe Lys Leu Arg Leu Gly His Leu Lys Lys Glu Glu Ala Glu Ile  
385                    390                    395                    400

Gln Ala Glu Leu Glu Arg Leu Glu Arg Val Arg Asn Leu His Ile Arg  
405                    410                    415

Glu Leu Lys Arg Ile His Asn Glu Asp Asn Ser Gln Phe Lys Asp His  
420                    425                    430

Pro Thr Leu Asn Asp Arg Tyr Leu Leu Leu His Leu Leu Gly Arg Gly  
435                    440                    445

Gly Phe Ser Glu Val Tyr Lys Ala Phe Asp Leu Thr Glu Gln Arg Tyr  
450                    455                    460

Val Ala Val Lys Ile His Gln Leu Asn Lys Asn Trp Arg Asp Glu Lys  
465                    470                    475                    480

Lys Glu Asn Tyr His Lys His Ala Cys Arg Glu Tyr Arg Ile His Lys  
485                    490                    495

Glu Leu Asp His Pro Arg Ile Val Lys Leu Tyr Asp Tyr Phe Ser Leu  
500                    505                    510

Asp Thr Asp Ser Phe Cys Thr Val Leu Glu Tyr Cys Glu Gly Asn Asp  
515                    520                    525

Leu Asp Phe Tyr Leu Lys Gln His Lys Leu Met Ser Glu Lys Glu Ala  
530                    535                    540

Arg Ser Ile Ile Met Gln Ile Val Asn Ala Leu Lys Tyr Leu Asn Glu  
545                    550                    555                    560

Ile Lys Pro Pro Ile Ile His Tyr Asp Leu Lys Pro Gly Asn Ile Leu  
565                    570                    575

Leu Val Asn Gly Thr Ala Cys Gly Glu Ile Lys Ile Thr Asp Phe Gly

580

585

590

Leu Ser Lys Ile Met Asp Asp Asp Ser Tyr Asn Ser Val Asp Gly Met  
595 600 605

Glu Leu Thr Ser Gln Gly Ala Gly Thr Tyr Trp Tyr Leu Pro Pro Glu  
610 615 620

Cys Phe Val Val Gly Lys Glu Pro Pro Lys Ile Ser Asn Lys Val Asp  
625 630 635 640

Val Trp Ser Val Gly Val Ile Phe Tyr Gln Cys Leu Tyr Gly Arg Lys  
645 650 655

Pro Phe Gly His Asn Gln Ser Gln Gln Asp Ile Leu Gln Glu Asn Thr  
660 665 670

Ile Leu Lys Ala Thr Glu Val Gln Phe Pro Pro Lys Pro Val Val Thr  
675 680 685

Pro Glu Ala Lys Ala Phe Ile Arg Arg Cys Leu Ala Tyr Arg Lys Arg  
690 695 700

Asp Arg Ile Asp Val Gln Gln Leu Ala Cys Asp Pro Tyr Leu Leu Pro  
705 710 715 720

His Ile Arg Lys Ser Val Ser Thr Ser Ser Pro Ala Gly Ala Ala Ile  
725 730 735

Ala Ser Thr Ser Gly Ala Ser Asn Asn Ser Ser Ser Asn  
740 745

<210> 262

<211> 712

<212> PRT

<213> Homo sapiens

<400> 262

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln  
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys  
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu  
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln  
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val  
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg  
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly  
100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu  
115 120 125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser  
130 135 140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu  
145 150 155 160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro  
165 170 175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly  
180 185 190

Ala Arg Pro Ser Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly  
195 200 205

Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly  
210 215 220

Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg  
225 230 235 240

Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe  
245 250 255

Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val  
260 265 270

Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr  
275 280 285

Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr  
290 295 300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu  
305 310 315 320

Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu  
325 330 335

Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu  
340 345 350

Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala  
355 360 365

Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val  
370 375 380

Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg  
385 390 395 400

Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly Val Val Val Leu Glu  
405 410 415

Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His Gly Ala Arg Thr Lys  
420 425 430

Tyr Leu Lys Asp Leu Val Glu Glu Glu Ala Glu Glu Ala Gly Val Ala  
435 440 445

Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala  
450 455 460

Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys Lys His Leu Asp Pro  
465 470 475 480

Arg Pro Gly Pro Cys Pro Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu  
485 490 495

Ala Cys Cys Cys Leu His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr  
500 505 510

Gln Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala Val Val Ala Gly Val  
515 520 525

Pro Gly His Leu Glu Ala Ala Ser Cys Ile Pro Pro Ser Pro Gln Glu  
530 535 540

Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro  
545 550 555 560

Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala Glu  
565 570 575

Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser Leu  
580 585 590

Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser Cys  
595 600 605

Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly Asp  
610 615 620

Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro Thr  
625 630 635 640

Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Glu  
645 650 655

Pro Pro Gln Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln Lys  
660 665 670

Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser  
675 680 685

Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro  
690 695 700

Glu Glu Ser Asp Glu Phe Gln Ser  
705 710

<210> 263  
<211> 712  
<212> PRT  
<213> Homo sapiens

<400> 263

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln  
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys  
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu  
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln  
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val  
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg  
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly  
100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu  
115 120 125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser  
130 135 140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu  
145 150 155 160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro  
165 170 175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly  
180 185 190

Ala Arg Pro Ser Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly  
195 200 205

Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Phe Gly  
210 215 220

Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg  
225 230 235 240

Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe  
245 250 255

Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val  
260 265 270

Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr  
275 280 285

Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr  
290 295 300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu  
305 310 315 320

Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu  
325 330 335

Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu  
340 345 350

Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala  
355 360 365

Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val  
370 375 380

Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg  
385 390 395 400

Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly Val Val Val Leu Glu  
405 410 415

Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His Gly Ala Arg Thr Lys  
420 425 430

Tyr Leu Lys Asp Leu Val Glu Glu Glu Ala Glu Glu Ala Gly Val Ala  
435 440 445

Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala  
450 455 460

Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys Lys His Leu Asp Pro  
465 470 475 480

Arg Pro Gly Pro Cys Pro Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu  
485 490 495

Ala Cys Cys Cys Leu His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr  
500 505 510

Gln Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala Val Val Ala Gly Val  
515 520 525

Pro Gly His Leu Glu Ala Ala Ser Cys Ile Pro Pro Ser Pro Gln Glu  
530 535 540

Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro  
545 550 555 560

Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala Glu  
565 570 575

Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser Leu  
580 585 590

Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser Cys  
595 600 605

Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly Asp  
610 615 620

Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro Thr  
625 630 635 640

Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Glu  
645 650 655

Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln Lys  
660 665 670

Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser  
675 680 685

Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro  
690 695 700

Glu Glu Ser Asp Glu Phe Gln Ser  
705 710

<210> 264  
<211> 712  
<212> PRT  
<213> Homo sapiens

<400> 264

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln  
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys  
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu  
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln  
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val  
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg  
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly

100                    105                    110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu  
115                    120                    125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser  
130                    135                    140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu  
145                    150                    155                    160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Ser Pro Ala Pro  
165                    170                    175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly  
180                    185                    190

Ala Arg Pro Ser Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly  
195                    200                    205

Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly  
210                    215                    220

Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg  
225                    230                    235                    240

Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe  
245                    250                    255

Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val  
260                    265                    270

Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr  
275                    280                    285

Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr  
290                    295                    300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu  
305                    310                    315                    320

Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu  
325                    330                    335

Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu  
340                    345                    350

Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala  
355                    360                    365

Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val  
370                    375                    380

Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg  
385                    390                    395                    400

Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly Val Val Val Leu Glu

405                    410                    415

Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His Gly Ala Arg Thr Lys  
420                    425                    430

Tyr Leu Lys Asp Leu Val Glu Glu Glu Ala Glu Glu Ala Gly Val Ala  
435                    440                    445

Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala  
450                    455                    460

Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys Lys His Leu Asp Pro  
465                    470                    475                    480

Arg Pro Gly Pro Cys Pro Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu  
485                    490                    495

Ala Cys Cys Cys Leu His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr  
500                    505                    510

Gln Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala Val Val Ala Gly Val  
515                    520                    525

Pro Gly His Leu Glu Ala Ala Ser Cys Ile Pro Pro Ser Pro Gln Glu  
530                    535                    540

Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro  
545                    550                    555                    560

Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala Glu  
565                    570                    575

Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser Leu  
580                    585                    590

Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser Cys  
595                    600                    605

Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly Asp  
610                    615                    620

Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro Thr  
625                    630                    635                    640

Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Glu  
645                    650                    655

Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln Lys  
660                    665                    670

Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser  
675                    680                    685

Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro  
690                    695                    700

Glu Glu Ser Asp Glu Phe Gln Ser

705

710

<210> 265

<211> 740

<212> PRT

<213> Homo sapiens

<400> 265

Met Pro Leu Ala Gln Leu Ala Asp Pro Trp Gln Lys Met Ala Val Glu  
1 5 10 15

Ser Pro Ser Asp Ser Ala Glu Asn Gly Gln Gln Ile Met Asp Glu Pro  
20 25 30

Met Gly Glu Glu Glu Ile Asn Pro Gln Thr Glu Glu Val Ser Ile Lys  
35 40 45

Glu Ile Ala Ile Thr His His Val Lys Glu Gly His Glu Lys Ala Asp  
50 55 60

Pro Ser Gln Phe Glu Leu Leu Lys Val Leu Gly Gln Gly Ser Phe Gly  
65 70 75 80

Lys Val Phe Leu Val Lys Lys Ile Ser Gly Ser Asp Ala Arg Gln Leu  
85 90 95

Tyr Ala Met Lys Val Leu Lys Lys Ala Thr Leu Lys Val Arg Asp Arg  
100 105 110

Val Arg Thr Lys Met Glu Arg Asp Ile Leu Val Glu Val Asn His Pro  
115 120 125

Phe Ile Val Lys Leu His Tyr Ala Phe Gln Thr Glu Gly Lys Leu Tyr  
130 135 140

Leu Ile Leu Asp Phe Leu Arg Gly Gly Asp Leu Phe Thr Arg Leu Ser  
145 150 155 160

Lys Glu Val Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu  
165 170 175

Leu Ala Leu Ala Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg  
180 185 190

Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp Glu Glu Gly His Ile Lys  
195 200 205

Leu Thr Asp Phe Gly Leu Ser Lys Glu Ser Ile Asp His Glu Lys Lys  
210 215 220

Ala Tyr Ser Phe Cys Gly Thr Val Glu Tyr Met Ala Pro Glu Val Val  
225 230 235 240

Asn Arg Arg Gly His Thr Gln Ser Ala Asp Trp Trp Ser Phe Gly Val  
245 250 255

Leu Met Phe Glu Met Leu Thr Gly Thr Leu Pro Phe Gln Gly Lys Asp  
260 265 270

Arg Lys Glu Thr Met Thr Met Ile Leu Lys Ala Lys Leu Gly Met Pro  
275 280 285

Gln Phe Leu Ser Pro Glu Ala Gln Ser Leu Leu Arg Met Leu Phe Lys  
290 295 300

Arg Asn Pro Ala Asn Arg Leu Gly Ala Gly Pro Asp Gly Val Glu Glu  
305 310 315 320

Ile Lys Arg His Ser Phe Phe Ser Thr Ile Asp Trp Asn Lys Leu Tyr  
325 330 335

Arg Arg Glu Ile His Pro Pro Phe Lys Pro Ala Thr Gly Arg Pro Glu  
340 345 350

Asp Thr Phe Tyr Phe Asp Pro Glu Phe Thr Ala Lys Thr Pro Lys Asp  
355 360 365

Ser Pro Gly Ile Pro Pro Ser Ala Asn Ala His Gln Leu Phe Arg Gly  
370 375 380

Phe Ser Phe Val Ala Ile Thr Ser Asp Asp Glu Ser Gln Ala Met Gln  
385 390 395 400

Thr Val Gly Val His Ser Ile Val Gln Gln Leu His Arg Asn Ser Ile  
405 410 415

Gln Phe Thr Asp Gly Tyr Glu Val Lys Glu Asp Ile Gly Val Gly Ser  
420 425 430

Tyr Ser Val Cys Lys Arg Cys Ile His Lys Ala Thr Asn Met Glu Phe  
435 440 445

Ala Val Lys Ile Ile Asp Lys Ser Lys Arg Asp Pro Thr Glu Glu Ile  
450 455 460

Glu Ile Leu Leu Arg Tyr Gly Gln His Pro Asn Ile Ile Thr Leu Lys  
465 470 475 480

Asp Val Tyr Asp Asp Gly Lys Tyr Val Tyr Val Val Thr Glu Leu Met  
485 490 495

Lys Gly Gly Glu Leu Leu Asp Lys Ile Leu Arg Gln Lys Phe Phe Ser  
500 505 510

Glu Arg Glu Ala Ser Ala Val Leu Phe Thr Ile Thr Lys Thr Val Glu  
515 520 525

Tyr Leu His Ala Gln Gly Val Val His Arg Asp Leu Lys Pro Ser Asn  
530 535 540

Ile Leu Tyr Val Asp Glu Ser Gly Asn Pro Glu Ser Ile Arg Ile Cys  
545 550 555 560

Asp Phe Gly Phe Ala Lys Gln Leu Arg Ala Glu Asn Gly Leu Leu Met  
565 570 575

Thr Pro Cys Tyr Thr Ala Asn Phe Val Ala Pro Glu Val Leu Lys Arg  
580 585 590

Gln Gly Tyr Asp Ala Ala Cys Asp Ile Trp Ser Leu Gly Val Leu Leu  
595 600 605

Tyr Thr Met Leu Thr Gly Tyr Thr Pro Phe Ala Asn Gly Pro Asp Asp  
610 615 620

Thr Pro Glu Glu Ile Leu Ala Arg Ile Gly Ser Gly Lys Phe Ser Leu  
625 630 635 640

Ser Gly Gly Tyr Trp Asn Ser Val Ser Asp Thr Ala Lys Asp Leu Val  
645 650 655

Ser Lys Met Leu His Val Asp Pro His Gln Arg Leu Thr Ala Ala Leu  
660 665 670

Val Leu Arg His Pro Trp Ile Val His Trp Asp Gln Leu Pro Gln Tyr  
675 680 685

Gln Leu Asn Arg Gln Asp Ala Pro His Leu Val Lys Gly Ala Met Ala  
690 695 700

Ala Thr Tyr Ser Ala Leu Asn Arg Asn Gln Ser Pro Val Leu Glu Pro  
705 710 715 720

Val Gly Arg Ser Thr Leu Ala Gln Arg Arg Gly Ile Lys Lys Ile Thr  
725 730 735

Ser Thr Ala Leu  
740

<210> 266  
<211> 740  
<212> PRT  
<213> Homo sapiens

<400> 266

Met Pro Leu Ala Gln Leu Ala Asp Pro Trp Gln Lys Met Ala Val Glu  
1 5 10 15

Ser Pro Ser Asp Ser Ala Glu Asn Gly Gln Gln Ile Met Asp Glu Pro  
20 25 30

Met Gly Glu Glu Glu Ile Asn Pro Gln Thr Glu Glu Val Ser Ile Lys  
35 40 45

Glu Ile Ala Ile Thr His His Val Lys Glu Gly His Glu Lys Ala Asp  
50 55 60

Pro Ser Gln Phe Glu Leu Leu Lys Val Leu Gly Gln Gly Ser Phe Gly  
65 70 75 80

Lys Val Phe Leu Val Lys Lys Ile Ser Gly Ser Asp Ala Arg Gln Leu  
85 90 95

Tyr Ala Met Lys Val Leu Lys Lys Ala Thr Leu Lys Val Arg Asp Arg  
100 105 110

Val Arg Thr Lys Met Glu Arg Asp Ile Leu Val Glu Val Asn His Pro  
115 120 125

Phe Ile Val Lys Leu His Tyr Ala Phe Gln Thr Glu Gly Lys Leu Tyr  
130 135 140

Leu Ile Leu Asp Phe Leu Arg Gly Asp Leu Phe Thr Arg Leu Ser  
145 150 155 160

Lys Glu Val Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu  
165 170 175

Leu Ala Leu Ala Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg  
180 185 190

Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp Glu Glu Gly His Ile Lys  
195 200 205

Leu Thr Asp Phe Gly Leu Ser Lys Glu Ser Ile Asp His Glu Lys Lys  
210 215 220

Ala Tyr Ser Phe Cys Gly Thr Val Glu Tyr Met Ala Pro Glu Val Val  
225 230 235 240

Asn Arg Arg Gly His Thr Gln Ser Ala Asp Trp Trp Ser Phe Gly Val  
245 250 255

Leu Met Phe Glu Met Leu Thr Gly Thr Leu Pro Phe Gln Gly Lys Asp  
260 265 270

Arg Lys Glu Thr Met Thr Met Ile Leu Lys Ala Lys Leu Gly Met Pro  
275 280 285

Gln Phe Leu Ser Pro Glu Ala Gln Ser Leu Leu Arg Met Leu Phe Lys  
290 295 300

Arg Asn Pro Ala Asn Arg Leu Gly Ala Gly Pro Asp Gly Val Glu Glu  
305 310 315 320

Ile Lys Arg His Ser Phe Phe Ser Thr Ile Asp Trp Asn Lys Leu Tyr  
325 330 335

Arg Arg Glu Ile His Pro Pro Phe Lys Pro Ala Thr Gly Arg Pro Glu  
340 345 350

Asp Thr Phe Tyr Phe Asp Pro Glu Phe Thr Ala Lys Thr Pro Lys Asp  
355 360 365

Ser Pro Gly Ile Pro Pro Ser Ala Asn Ala His Gln Leu Phe Arg Gly  
370 375 380

Phe Ser Phe Val Ala Ile Thr Ser Asp Asp Glu Ser Gln Ala Met Gln  
385 390 395 400

Thr Val Gly Val His Ser Ile Val Gln Gln Leu His Arg Asn Ser Ile  
405 410 415

Gln Phe Thr Asp Gly Tyr Glu Val Lys Glu Asp Ile Gly Val Gly Ser  
420 425 430

Tyr Ser Val Cys Lys Arg Cys Ile His Lys Ala Thr Asn Met Glu Phe  
435 440 445

Ala Val Lys Ile Ile Asp Lys Ser Lys Arg Asp Pro Thr Glu Glu Ile  
450 455 460

Glu Ile Leu Leu Arg Tyr Gly Gln His Pro Asn Ile Ile Thr Leu Lys  
465 470 475 480

Asp Val Tyr Asp Asp Gly Lys Tyr Val Tyr Val Val Thr Glu Leu Met  
485 490 495

Lys Gly Gly Glu Leu Leu Asp Lys Ile Leu Arg Gln Lys Phe Phe Ser  
500 505 510

Glu Arg Glu Ala Ser Ala Val Leu Phe Thr Ile Thr Lys Thr Val Glu  
515 520 525

Tyr Leu His Ala Gln Gly Val Val His Arg Asp Leu Lys Pro Ser Asn  
530 535 540

Ile Leu Tyr Val Asp Glu Ser Gly Asn Pro Glu Ser Ile Arg Ile Cys  
545 550 555 560

Asp Phe Gly Phe Ala Lys Gln Leu Arg Ala Glu Asn Gly Leu Leu Met  
565 570 575

Thr Pro Cys Tyr Thr Ala Asn Phe Val Ala Pro Glu Val Leu Lys Arg  
580 585 590

Gln Gly Tyr Asp Ala Ala Cys Asp Ile Trp Ser Leu Gly Val Leu Leu  
595 600 605

Tyr Thr Met Leu Thr Gly Tyr Thr Pro Phe Ala Asn Gly Pro Asp Asp  
610 615 620

Thr Pro Glu Glu Ile Leu Ala Arg Ile Gly Ser Gly Lys Phe Ser Leu  
625 630 635 640

Ser Gly Gly Tyr Trp Asn Ser Val Ser Asp Thr Ala Lys Asp Leu Val  
645 650 655

Ser Lys Met Leu His Val Asp Pro His Gln Arg Leu Thr Ala Ala Leu  
660 665 670

Val Leu Arg His Pro Trp Ile Val His Trp Asp Gln Leu Pro Gln Tyr  
675 680 685

Gln Leu Asn Arg Gln Asp Ala Pro His Leu Val Lys Gly Ala Met Ala  
690 695 700

Ala Thr Tyr Ser Ala Leu Asn Arg Asn Gln Ser Pro Val Leu Glu Pro  
705 710 715 720

Val Gly Arg Ser Thr Leu Ala Gln Arg Arg Gly Ile Lys Lys Ile Thr  
725 730 735

Ser Thr Ala Leu  
740

<210> 267  
<211> 1374  
<212> PRT  
<213> Homo sapiens

<400> 267

Met Ser Thr Glu Ala Asp Glu Gly Ile Thr Phe Ser Val Pro Pro Phe  
1 5 10 15

Ala Pro Ser Gly Phe Cys Thr Ile Pro Glu Gly Gly Ile Cys Arg Arg  
20 25 30

Gly Gly Ala Ala Ala Val Gly Glu Gly Glu His Gln Leu Pro Pro  
35 40 45

Pro Pro Pro Gly Ser Phe Trp Asn Val Glu Ser Ala Ala Ala Pro Gly  
50 55 60

Ile Gly Cys Pro Ala Ala Thr Ser Ser Ser Ala Thr Arg Gly Arg  
65 70 75 80

Gly Ser Ser Val Gly Gly Ser Arg Arg Thr Thr Val Ala Tyr Val  
85 90 95

Ile Asn Glu Ala Ser Gln Gly Gln Leu Val Val Ala Glu Ser Glu Ala  
100 105 110

Leu Gln Ser Leu Arg Glu Ala Cys Glu Thr Val Gly Ala Thr Leu Glu  
115 120 125

Thr Leu His Phe Gly Lys Leu Asp Phe Gly Glu Thr Thr Val Leu Asp  
130 135 140

Arg Phe Tyr Asn Ala Asp Ile Ala Val Val Glu Met Ser Asp Ala Phe  
145 150 155 160

Arg Gln Pro Ser Leu Phe Tyr His Leu Gly Val Arg Glu Ser Phe Ser  
165 170 175

Met Ala Asn Asn Ile Ile Leu Tyr Cys Asp Thr Asn Ser Asp Ser Leu  
180 185 190

Gln Ser Leu Lys Glu Ile Ile Cys Gln Lys Asn Thr Met Cys Thr Gly

195	200	205
Asn Tyr Thr Phe Val Pro Tyr Met Ile Thr Pro His Asn Lys Val Tyr 210	215	220
Cys Cys Asp Ser Ser Phe Met Lys Gly Leu Thr Glu Leu Met Gln Pro 225	230	235
Asn Phe Glu Leu Leu Leu Gly Pro Ile Cys Leu Pro Leu Val Asp Arg 245	250	255
Phe Ile Gln Leu Leu Lys Val Ala Gln Ala Ser Ser Ser Gln Tyr Phe 260	265	270
Arg Glu Ser Ile Leu Asn Asp Ile Arg Lys Ala Arg Asn Leu Tyr Thr 275	280	285
Gly Lys Glu Leu Ala Ala Glu Leu Ala Arg Ile Arg Gln Arg Val Asp 290	295	300
Asn Ile Glu Val Leu Thr Ala Asp Ile Val Ile Asn Leu Leu Leu Ser 305	310	315
Tyr Arg Asp Ile Gln Asp Tyr Asp Ser Ile Val Lys Leu Val Glu Thr 325	330	335
Leu Glu Lys Leu Pro Thr Phe Asp Leu Ala Ser His His His Val Lys 340	345	350
Phe His Tyr Ala Phe Ala Leu Asn Arg Arg Asn Leu Pro Gly Asp Arg 355	360	365
Ala Lys Ala Leu Asp Ile Met Ile Pro Met Val Gln Ser Glu Gly Gln 370	375	380
Val Ala Ser Asp Met Tyr Cys Leu Val Gly Arg Ile Tyr Lys Asp Met 385	390	395
Phe Leu Asp Ser Asn Phe Thr Asp Thr Glu Ser Arg Asp His Gly Ala 405	410	415
Ser Trp Phe Lys Lys Ala Phe Glu Ser Glu Pro Thr Leu Gln Ser Gly 420	425	430
Ile Asn Tyr Ala Val Leu Leu Ala Ala Gly His Gln Phe Glu Ser 435	440	445
Ser Phe Glu Leu Arg Lys Val Gly Val Lys Leu Ser Ser Leu Leu Gly 450	455	460
Lys Lys Gly Asn Leu Glu Lys Leu Gln Ser Tyr Trp Glu Val Gly Phe 465	470	475
Phe Leu Gly Ala Ser Val Leu Ala Asn Asp His Met Arg Val Ile Gln 485	490	495
Ala Ser Glu Lys Leu Phe Lys Leu Lys Thr Pro Ala Trp Tyr Leu Lys		

500	505	510
Ser Ile Val Glu Thr Ile Leu Ile Tyr Lys His Phe Val Lys Leu Thr		
515	520	525
Thr Glu Gln Pro Val Ala Lys Gln Glu Leu Val Asp Phe Trp Met Asp		
530	535	540
Phe Leu Val Glu Ala Thr Lys Thr Asp Val Thr Val Val Arg Phe Pro		
545	550	555
Val Leu Ile Leu Glu Pro Thr Lys Ile Tyr Gln Pro Ser Tyr Leu Ser		
565	570	575
Ile Asn Asn Glu Val Glu Glu Lys Thr Ile Ser Ile Trp His Val Leu		
580	585	590
Pro Asp Asp Lys Lys Gly Ile His Glu Trp Asn Phe Ser Ala Ser Ser		
595	600	605
Val Arg Gly Val Ser Ile Ser Lys Phe Glu Glu Arg Cys Cys Phe Leu		
610	615	620
Tyr Val Leu His Asn Ser Asp Asp Phe Gln Ile Tyr Phe Cys Thr Glu		
625	630	635
640		
Leu His Cys Lys Lys Phe Phe Glu Met Val Asn Thr Ile Thr Glu Glu		
645	650	655
Lys Gly Arg Ser Thr Glu Glu Gly Asp Cys Glu Ser Asp Leu Leu Glu		
660	665	670
Tyr Asp Tyr Glu Tyr Asp Glu Asn Gly Asp Arg Val Val Leu Gly Lys		
675	680	685
Gly Thr Tyr Gly Ile Val Tyr Ala Gly Arg Asp Leu Ser Asn Gln Val		
690	695	700
Arg Ile Ala Ile Lys Glu Ile Pro Glu Arg Asp Ser Arg Tyr Ser Gln		
705	710	715
720		
Pro Leu His Glu Glu Ile Ala Leu His Lys His Leu Lys His Lys Asn		
725	730	735
Ile Val Gln Tyr Leu Gly Ser Phe Ser Glu Asn Gly Phe Ile Lys Ile		
740	745	750
Phe Met Glu Gln Val Pro Gly Gly Ser Leu Ser Ala Leu Leu Arg Ser		
755	760	765
Lys Trp Gly Pro Leu Lys Asp Asn Glu Gln Thr Ile Gly Phe Tyr Thr		
770	775	780
Lys Gln Ile Leu Glu Gly Leu Lys Tyr Leu His Asp Asn Gln Ile Val		
785	790	795
800		
His Arg Asp Ile Lys Gly Asp Asn Val Leu Ile Asn Thr Tyr Ser Gly		

805                    810                    815

Val Leu Lys Ile Ser Asp Phe Gly Thr Ser Lys Arg Leu Ala Gly Ile  
820                    825                    830

Asn Pro Cys Thr Glu Thr Phe Thr Gly Thr Leu Gln Tyr Met Ala Pro  
835                    840                    845

Glu Ile Ile Asp Lys Gly Pro Arg Gly Tyr Gly Lys Ala Ala Asp Ile  
850                    855                    860

Trp Ser Leu Gly Cys Thr Ile Ile Glu Met Ala Thr Gly Lys Pro Pro  
865                    870                    875                    880

Phe Tyr Glu Leu Gly Glu Pro Gln Ala Ala Met Phe Lys Val Gly Met  
885                    890                    895

Phe Lys Val His Pro Glu Ile Pro Glu Ser Met Ser Ala Glu Ala Lys  
900                    905                    910

Ala Phe Ile Leu Lys Cys Phe Glu Pro Asp Pro Asp Lys Arg Ala Cys  
915                    920                    925

Ala Asn Asp Leu Leu Val Asp Glu Phe Leu Lys Val Ser Ser Lys Lys  
930                    935                    940

Lys Lys Thr Gln Pro Lys Leu Ser Ala Leu Ser Ala Gly Ser Asn Glu  
945                    950                    955                    960

Tyr Leu Arg Ser Ile Ser Leu Pro Val Pro Val Leu Val Glu Asp Thr  
965                    970                    975

Ser Ser Ser Ser Glu Tyr Gly Ser Val Ser Pro Asp Thr Glu Leu Lys  
980                    985                    990

Val Asp Pro Phe Ser Phe Lys Thr Arg Ala Lys Ser Cys Gly Glu Arg  
995                    1000                    1005

Asp Val Lys Gly Ile Arg Thr Leu Phe Leu Gly Ile Pro Asp Glu  
1010                    1015                    1020

Asn Phe Glu Asp His Ser Ala Pro Pro Ser Pro Glu Glu Lys Asp  
1025                    1030                    1035

Ser Gly Phe Phe Met Leu Arg Lys Asp Ser Glu Arg Arg Ala Thr  
1040                    1045                    1050

Leu His Arg Ile Leu Thr Glu Asp Gln Asp Lys Ile Val Arg Asn  
1055                    1060                    1065

Leu Met Glu Ser Leu Ala Gln Gly Ala Glu Glu Pro Lys Leu Lys  
1070                    1075                    1080

Trp Glu His Ile Thr Thr Leu Ile Ala Ser Leu Arg Glu Phe Val  
1085                    1090                    1095

Arg Ser Thr Asp Arg Lys Ile Ile Ala Thr Thr Leu Ser Lys Leu

1100 1105 1110  
Lys Leu Glu Leu Asp Phe Asp Ser His Gly Ile Ser Gln Val Gln  
1115 1120 1125  
Val Val Leu Phe Gly Phe Gln Asp Ala Val Asn Lys Val Leu Arg  
1130 1135 1140  
Asn His Asn Ile Lys Pro His Trp Met Phe Ala Leu Asp Ser Ile  
1145 1150 1155  
Ile Arg Lys Ala Val Gln Thr Ala Ile Thr Ile Leu Val Pro Glu  
1160 1165 1170  
Leu Arg Pro His Phe Ser Leu Ala Ser Glu Ser Asp Thr Ala Asp  
1175 1180 1185  
Gln Glu Asp Leu Asp Val Glu Asp Asp His Glu Glu Gln Pro Ser  
1190 1195 1200  
Asn Gln Thr Val Arg Arg Pro Gln Ala Val Ile Glu Asp Ala Val  
1205 1210 1215  
Ala Thr Ser Gly Val Ser Thr Leu Ser Ser Thr Val Ser His Asp  
1220 1225 1230  
Ser Gln Ser Ala His Arg Ser Leu Asn Val Gln Leu Gly Arg Met  
1235 1240 1245  
Lys Ile Glu Thr Asn Arg Leu Leu Glu Glu Leu Val Arg Lys Glu  
1250 1255 1260  
Lys Glu Leu Gln Ala Leu Leu His Arg Ala Ile Glu Glu Lys Asp  
1265 1270 1275  
Gln Glu Ile Lys His Leu Lys Leu Lys Ser Gln Pro Ile Glu Ile  
1280 1285 1290  
Pro Glu Leu Pro Val Phe His Leu Asn Ser Ser Gly Thr Asn Thr  
1295 1300 1305  
Glu Asp Ser Glu Leu Thr Asp Trp Leu Arg Val Asn Gly Ala Asp  
1310 1315 1320  
Glu Asp Thr Ile Ser Arg Phe Leu Ala Glu Asp Tyr Thr Leu Leu  
1325 1330 1335  
Asp Val Leu Tyr Tyr Val Thr Arg Asp Asp Leu Lys Cys Leu Arg  
1340 1345 1350  
Leu Arg Gly Gly Met Leu Cys Thr Leu Trp Lys Ala Ile Ile Asp  
1355 1360 1365  
Phe Arg Asn Lys Gln Thr  
1370

<211> 729  
<212> PRT  
<213> Homo sapiens

<400> 268

Met Gln Ser Thr Ser Asn His Leu Trp Leu Leu Ser Asp Ile Leu Gly  
1 5 10 15

Gln Gly Ala Thr Ala Asn Val Phe Arg Gly Arg His Lys Lys Thr Gly  
20 25 30

Asp Leu Phe Ala Ile Lys Val Phe Asn Asn Ile Ser Phe Leu Arg Pro  
35 40 45

Val Asp Val Gln Met Arg Glu Phe Glu Val Leu Lys Lys Leu Asn His  
50 55 60

Lys Asn Ile Val Lys Leu Phe Ala Ile Glu Glu Glu Thr Thr Arg  
65 70 75 80

His Lys Val Leu Ile Met Glu Phe Cys Pro Cys Gly Ser Leu Tyr Thr  
85 90 95

Val Leu Glu Glu Pro Ser Asn Ala Tyr Gly Leu Pro Glu Ser Glu Phe  
100 105 110

Leu Ile Val Leu Arg Asp Val Val Gly Gly Met Asn His Leu Arg Glu  
115 120 125

Asn Gly Ile Val His Arg Asp Ile Lys Pro Gly Asn Ile Met Arg Val  
130 135 140

Ile Gly Glu Asp Gly Gln Ser Val Tyr Lys Leu Thr Asp Phe Gly Ala  
145 150 155 160

Ala Arg Glu Leu Glu Asp Asp Glu Gln Phe Val Ser Leu Tyr Gly Thr  
165 170 175

Glu Glu Tyr Leu His Pro Asp Met Tyr Glu Arg Ala Val Leu Arg Lys  
180 185 190

Asp His Gln Lys Lys Tyr Gly Ala Thr Val Asp Leu Trp Ser Ile Gly  
195 200 205

Val Thr Phe Tyr His Ala Ala Thr Gly Ser Leu Pro Phe Arg Pro Phe  
210 215 220

Glu Gly Pro Arg Arg Asn Lys Glu Val Met Tyr Lys Ile Ile Thr Gly  
225 230 235 240

Lys Pro Ser Gly Ala Ile Ser Gly Val Gln Lys Ala Glu Asn Gly Pro  
245 250 255

Ile Asp Trp Ser Gly Asp Met Pro Val Ser Cys Ser Leu Ser Arg Gly  
260 265 270

Leu Gln Val Leu Leu Thr Pro Val Leu Ala Asn Ile Leu Glu Ala Asp  
275 280 285

Gln Glu Lys Cys Trp Gly Phe Asp Gln Phe Phe Ala Glu Thr Ser Asp  
290 295 300

Ile Leu His Arg Met Val Ile His Val Phe Ser Leu Gln Gln Met Thr  
305 310 315 320

Ala His Lys Ile Tyr Ile His Ser Tyr Asn Thr Ala Thr Ile Phe His  
325 330 335

Glu Leu Val Tyr Lys Gln Thr Lys Ile Ile Ser Ser Asn Gln Glu Leu  
340 345 350

Ile Tyr Glu Gly Arg Arg Leu Val Leu Glu Pro Gly Arg Leu Ala Gln  
355 360 365

His Phe Pro Lys Thr Thr Glu Glu Asn Pro Ile Phe Val Val Ser Arg  
370 375 380

Glu Pro Leu Asn Thr Ile Gly Leu Ile Tyr Glu Lys Ile Ser Leu Pro  
385 390 395 400

Lys Val His Pro Arg Tyr Asp Leu Asp Gly Asp Ala Ser Met Ala Lys  
405 410 415

Ala Ile Thr Gly Val Val Cys Tyr Ala Cys Arg Ile Ala Ser Thr Leu  
420 425 430

Leu Leu Tyr Gln Glu Leu Met Arg Lys Gly Ile Arg Trp Leu Ile Glu  
435 440 445

Leu Ile Lys Asp Asp Tyr Asn Glu Thr Val His Lys Lys Thr Glu Val  
450 455 460

Val Ile Thr Leu Asp Phe Cys Ile Arg Asn Ile Glu Lys Thr Val Lys  
465 470 475 480

Val Tyr Glu Lys Leu Met Lys Ile Asn Leu Glu Ala Ala Glu Leu Gly  
485 490 495

Glu Ile Ser Asp Ile His Thr Lys Leu Leu Arg Leu Ser Ser Gln  
500 505 510

Gly Thr Ile Glu Thr Ser Leu Gln Asp Ile Asp Ser Arg Leu Ser Pro  
515 520 525

Gly Gly Ser Leu Ala Asp Ala Trp Ala His Gln Glu Gly Thr His Pro  
530 535 540

Lys Asp Arg Asn Val Glu Lys Leu Gln Val Leu Leu Asn Cys Met Thr  
545 550 555 560

Glu Ile Tyr Tyr Gln Phe Lys Lys Asp Lys Ala Glu Arg Arg Leu Ala  
565 570 575

Tyr Asn Glu Glu Gln Ile His Lys Phe Asp Lys Gln Lys Leu Tyr Tyr  
580 585 590

His Ala Thr Lys Ala Met Thr His Phe Thr Asp Glu Cys Val Lys Lys  
595 600 605

Tyr Glu Ala Phe Leu Asn Lys Ser Glu Glu Trp Ile Arg Lys Met Leu  
610 615 620

His Leu Arg Lys Gln Leu Leu Ser Leu Thr Asn Gln Cys Phe Asp Ile  
625 630 635 640

Glu Glu Glu Val Ser Lys Tyr Gln Glu Tyr Thr Asn Glu Leu Gln Glu  
645 650 655

Thr Leu Pro Gln Lys Met Phe Thr Ala Ser Ser Gly Ile Lys His Thr  
660 665 670

Met Thr Pro Ile Tyr Pro Ser Ser Asn Thr Leu Val Glu Met Thr Leu  
675 680 685

Gly Met Lys Lys Leu Lys Glu Glu Met Glu Gly Val Val Lys Glu Leu  
690 695 700

Ala Glu Asn Asn His Ile Leu Glu Arg Phe Gly Ser Leu Thr Met Asp  
705 710 715 720

Gly Gly Leu Arg Asn Val Asp Cys Leu  
725

<210> 269

<211> 422

<212> PRT

<213> Homo sapiens

<400> 269

Met Ser Leu His Phe Leu Tyr Tyr Cys Ser Glu Pro Thr Leu Asp Val  
1 5 10 15

Lys Ile Ala Phe Cys Gln Gly Phe Asp Lys Gln Val Asp Val Ser Tyr  
20 25 30

Ile Ala Lys His Tyr Asn Met Ser Lys Ser Lys Val Asp Asn Gln Phe  
35 40 45

Tyr Ser Val Glu Val Gly Asp Ser Thr Phe Thr Val Leu Lys Arg Tyr  
50 55 60

Gln Asn Leu Lys Pro Ile Gly Ser Gly Ala Gln Gly Ile Val Cys Ala  
65 70 75 80

Ala Tyr Asp Ala Val Leu Asp Arg Asn Val Ala Ile Lys Lys Leu Ser  
85 90 95

Arg Pro Phe Gln Asn Gln Thr His Ala Lys Arg Ala Tyr Arg Glu Leu  
100 105 110

Val Leu Met Lys Cys Val Asn His Lys Asn Ile Ile Ser Leu Leu Asn  
115 120 125

Val Phe Thr Pro Gln Lys Thr Leu Glu Glu Phe Gln Asp Val Tyr Leu  
130 135 140

Val Met Glu Leu Met Asp Ala Asn Leu Cys Gln Val Ile Gln Met Glu  
145 150 155 160

Leu Asp His Glu Arg Met Ser Tyr Leu Leu Tyr Gln Met Leu Cys Gly  
165 170 175

Ile Lys His Leu His Ser Ala Gly Ile Ile His Arg Asp Leu Lys Pro  
180 185 190

Ser Asn Ile Val Val Lys Ser Asp Cys Thr Leu Lys Ile Leu Asp Phe  
195 200 205

Gly Leu Ala Arg Thr Ala Gly Thr Ser Phe Met Met Thr Pro Tyr Val  
210 215 220

Val Thr Arg Tyr Tyr Arg Ala Pro Glu Val Ile Leu Gly Met Gly Tyr  
225 230 235 240

Lys Glu Asn Val Asp Ile Trp Ser Val Gly Cys Ile Met Gly Glu Met  
245 250 255

Val Arg His Lys Ile Leu Phe Pro Gly Arg Asp Tyr Ile Asp Gln Trp  
260 265 270

Asn Lys Val Ile Glu Gln Leu Gly Thr Pro Cys Pro Glu Phe Met Lys  
275 280 285

Lys Leu Gln Pro Thr Val Arg Asn Tyr Val Glu Asn Arg Pro Lys Tyr  
290 295 300

Ala Gly Leu Thr Phe Pro Lys Leu Phe Pro Asp Ser Leu Phe Pro Ala  
305 310 315 320

Asp Ser Glu His Asn Lys Leu Lys Ala Ser Gln Ala Arg Asp Leu Leu  
325 330 335

Ser Lys Met Leu Val Ile Asp Pro Ala Lys Arg Ile Ser Val Asp Asp  
340 345 350

Ala Leu Gln His Pro Tyr Ile Asn Val Trp Tyr Asp Pro Ala Glu Val  
355 360 365

Glu Ala Pro Pro Gln Ile Tyr Asp Lys Gln Leu Asp Glu Arg Glu  
370 375 380

His Thr Ile Glu Glu Trp Lys Glu Leu Ile Tyr Lys Glu Val Met Asn  
385 390 395 400

Ser Glu Glu Lys Thr Lys Asn Gly Val Val Lys Gly Gln Pro Ser Pro  
405 410 415

Ser Ala Gln Val Gln Gln  
420

<210> 270  
<211> 422  
<212> PRT  
<213> Homo sapiens

<400> 270

Met Ser Leu His Phe Leu Tyr Tyr Cys Ser Glu Pro Thr Leu Asp Val  
1 5 10 15

Lys Ile Ala Phe Cys Gln Gly Phe Asp Lys Gln Val Asp Val Ser Tyr  
20 25 30

Ile Ala Lys His Tyr Asn Met Ser Lys Ser Lys Val Asp Asn Gln Phe  
35 40 45

Tyr Ser Val Glu Val Gly Asp Ser Thr Phe Thr Val Leu Lys Arg Tyr  
50 55 60

Gln Asn Leu Lys Pro Ile Gly Ser Gly Ala Gln Gly Ile Val Cys Ala  
65 70 75 80

Ala Tyr Asp Ala Val Leu Asp Arg Asn Val Ala Ile Lys Lys Leu Ser  
85 90 95

Arg Pro Phe Gln Asn Gln Thr His Ala Lys Arg Ala Tyr Arg Glu Leu  
100 105 110

Val Leu Met Lys Cys Val Asn His Lys Asn Ile Ile Ser Leu Leu Asn  
115 120 125

Val Phe Thr Pro Gln Lys Thr Leu Glu Glu Phe Gln Asp Val Tyr Leu  
130 135 140

Val Met Glu Leu Met Asp Ala Asn Leu Cys Gln Val Ile Gln Met Glu  
145 150 155 160

Leu Asp His Glu Arg Met Ser Tyr Leu Leu Tyr Gln Met Leu Cys Gly  
165 170 175

Ile Lys His Leu His Ser Ala Gly Ile Ile His Arg Asp Leu Lys Pro  
180 185 190

Ser Asn Ile Val Val Lys Ser Asp Cys Thr Leu Lys Ile Leu Asp Phe  
195 200 205

Gly Leu Ala Arg Thr Ala Gly Thr Ser Phe Met Met Thr Pro Tyr Val  
210 215 220

Val Thr Arg Tyr Tyr Arg Ala Pro Glu Val Ile Leu Gly Met Gly Tyr  
225 230 235 240

Lys Glu Asn Val Asp Ile Trp Ser Val Gly Cys Ile Met Gly Glu Met

	245	250	255
Val Arg His Lys Ile Leu Phe Pro Gly Arg Asp Tyr Ile Asp Gln Trp			
260	265	270	
Asn Lys Val Ile Glu Gln Leu Gly Thr Pro Cys Pro Glu Phe Met Lys			
275	280	285	
Lys Leu Gln Pro Thr Val Arg Asn Tyr Val Glu Asn Arg Pro Lys Tyr			
290	295	300	
Ala Gly Leu Thr Phe Pro Lys Leu Phe Pro Asp Ser Leu Phe Pro Ala			
305	310	315	320
Asp Ser Glu His Asn Lys Leu Lys Ala Ser Gln Ala Arg Asp Leu Leu			
325	330	335	
Ser Lys Met Leu Val Ile Asp Pro Ala Lys Arg Ile Ser Val Asp Asp			
340	345	350	
Ala Leu Gln His Pro Tyr Ile Asn Val Trp Tyr Asp Pro Ala Glu Val			
355	360	365	
Glu Ala Pro Pro Gln Ile Tyr Asp Lys Gln Leu Asp Glu Arg Glu			
370	375	380	
His Thr Ile Glu Glu Trp Lys Glu Leu Ile Tyr Lys Glu Val Met Asn			
385	390	395	400
Ser Glu Glu Lys Thr Lys Asn Gly Val Val Lys Gly Gln Pro Ser Pro			
405	410	415	
Ser Ala Gln Val Gln Gln			
420			
<210> 271			
<211> 465			
<212> PRT			
<213> Homo sapiens			
<400> 271			
Met Ala Met Thr Gly Ser Thr Pro Cys Ser Ser Met Ser Asn His Thr			
1	5	10	15
Lys Glu Arg Val Thr Met Thr Lys Val Thr Leu Glu Asn Phe Tyr Ser			
20	25	30	
Asn Leu Ile Ala Gln His Glu Glu Arg Glu Met Arg Gln Lys Lys Leu			
35	40	45	
Glu Lys Val Met Glu Glu Gly Leu Lys Asp Glu Glu Lys Arg Leu			
50	55	60	
Arg Arg Ser Ala His Ala Arg Lys Glu Thr Glu Phe Leu Arg Leu Lys			
65	70	75	80

Arg Thr Arg Leu Gly Leu Glu Asp Phe Glu Ser Leu Lys Val Ile Gly  
85 90 95

Arg Gly Ala Phe Gly Glu Val Arg Leu Val Gln Lys Lys Asp Thr Gly  
100 105 110

His Val Tyr Ala Met Lys Ile Leu Arg Lys Ala Asp Met Leu Glu Lys  
115 120 125

Glu Gln Val Gly His Ile Arg Ala Glu Arg Asp Ile Leu Val Glu Ala  
130 135 140

Asp Ser Leu Trp Val Val Lys Met Phe Tyr Ser Phe Gln Asp Lys Leu  
145 150 155 160

Asn Leu Tyr Leu Ile Met Glu Phe Leu Pro Gly Gly Asp Met Met Thr  
165 170 175

Leu Leu Met Lys Lys Asp Thr Leu Thr Glu Glu Glu Thr Gln Phe Tyr  
180 185 190

Ile Ala Glu Thr Val Leu Ala Ile Asp Ser Ile His Gln Leu Gly Phe  
195 200 205

Ile His Arg Asp Ile Lys Pro Asp Asn Leu Leu Asp Ser Lys Gly  
210 215 220

His Val Lys Leu Ser Asp Phe Gly Leu Cys Thr Gly Leu Lys Lys Ala  
225 230 235 240

His Arg Thr Glu Phe Tyr Arg Asn Leu Asn His Ser Leu Pro Ser Asp  
245 250 255

Phe Thr Phe Gln Asn Met Asn Ser Lys Arg Lys Ala Glu Thr Trp Lys  
260 265 270

Arg Asn Arg Arg Gln Leu Ala Phe Ser Thr Val Gly Thr Pro Asp Tyr  
275 280 285

Ile Ala Pro Glu Val Phe Met Gln Thr Gly Tyr Asn Lys Leu Cys Asp  
290 295 300

Trp Trp Ser Leu Gly Val Ile Met Tyr Glu Met Leu Ile Gly Tyr Pro  
305 310 315 320

Pro Phe Cys Ser Glu Thr Pro Gln Glu Thr Tyr Lys Lys Val Met Asn  
325 330 335

Trp Lys Glu Thr Leu Thr Phe Pro Pro Glu Val Pro Ile Ser Glu Lys  
340 345 350

Ala Lys Asp Leu Ile Leu Arg Phe Cys Cys Glu Trp Glu His Arg Ile  
355 360 365

Gly Ala Pro Gly Val Glu Glu Ile Lys Ser Asn Ser Phe Phe Glu Gly  
370 375 380

Val Asp Trp Glu His Ile Arg Glu Arg Pro Ala Ala Ile Ser Ile Glu  
385 390 395 400

Ile Lys Ser Ile Asp Asp Thr Ser Asn Phe Asp Glu Phe Pro Glu Ser  
405 410 415

Asp Ile Leu Lys Pro Thr Val Ala Thr Ser Asn His Pro Glu Thr Asp  
420 425 430

Tyr Lys Asn Lys Asp Trp Val Phe Ile Asn Tyr Thr Tyr Lys Arg Phe  
435 440 445

Glu Gly Leu Thr Ala Arg Gly Ala Ile Pro Ser Tyr Met Lys Ala Ala  
450 455 460

Lys  
465

<210> 272  
<211> 547  
<212> PRT  
<213> Homo sapiens

<400> 272

Met Ala Glu Pro Ser Gly Ser Pro Val His Val Gln Leu Pro Gln Gln  
1 5 10 15

Ala Ala Pro Val Thr Ala Ala Ala Ala Ala Ala Pro Ala Ala Ala Thr  
20 25 30

Ala Ala Pro Ala Pro Ala Ala Pro Ala Ala Pro Ala Pro Ala Pro Ala  
35 40 45

Pro Ala Pro Ala Ala Gln Ala Val Gly Trp Pro Ile Cys Arg Asp Ala  
50 55 60

Tyr Glu Leu Gln Glu Val Ile Gly Ser Gly Ala Thr Ala Val Val Gln  
65 70 75 80

Ala Ala Leu Cys Lys Pro Arg Gln Glu Arg Val Ala Ile Lys Arg Ile  
85 90 95

Asn Leu Glu Lys Cys Gln Thr Ser Met Asp Glu Leu Leu Lys Glu Ile  
100 105 110

Gln Ala Met Ser Gln Cys Ser His Pro Asn Val Val Thr Tyr Tyr Thr  
115 120 125

Ser Phe Val Val Lys Asp Glu Leu Trp Leu Val Met Lys Leu Leu Ser  
130 135 140

Gly Gly Ser Met Leu Asp Ile Ile Lys Tyr Ile Val Asn Arg Gly Glu  
145 150 155 160

His Lys Asn Gly Val Leu Glu Glu Ala Ile Ile Ala Thr Ile Leu Lys  
165 170 175

Glu Val Leu Glu Gly Leu Asp Tyr Leu His Arg Asn Gly Gln Ile His  
180 185 190

Arg Asp Leu Lys Ala Gly Asn Ile Leu Leu Gly Glu Asp Gly Ser Val  
195 200 205

Gln Ile Ala Asp Phe Gly Val Ser Ala Phe Leu Ala Thr Gly Gly Asp  
210 215 220

Val Thr Arg Asn Lys Val Arg Lys Thr Phe Val Gly Thr Pro Cys Trp  
225 230 235 240

Met Ala Pro Glu Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala  
245 250 255

Asp Met Trp Ser Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala  
260 265 270

Ala Pro Tyr His Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu  
275 280 285

Gln Asn Asp Pro Pro Thr Leu Glu Thr Gly Val Glu Asp Lys Glu Met  
290 295 300

Met Lys Lys Tyr Gly Lys Ser Phe Arg Lys Leu Leu Ser Leu Cys Leu  
305 310 315 320

Gln Lys Asp Pro Ser Lys Arg Pro Thr Ala Ala Glu Leu Leu Lys Cys  
325 330 335

Lys Phe Phe Gln Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu Lys Leu  
340 345 350

Leu Thr Arg Thr Pro Asp Ile Ala Gln Arg Ala Lys Lys Val Arg Arg  
355 360 365

Val Pro Gly Ser Ser Gly His Leu His Lys Thr Glu Asp Gly Asp Trp  
370 375 380

Glu Trp Ser Asp Asp Glu Met Asp Glu Lys Ser Glu Glu Gly Lys Ala  
385 390 395 400

Ala Phe Ser Gln Glu Lys Ser Arg Arg Val Lys Glu Glu Asn Pro Glu  
405 410 415

Ile Ala Val Ser Ala Ser Thr Ile Pro Glu Gln Ile Gln Ser Leu Ser  
420 425 430

Val His Asp Ser Gln Gly Pro Pro Asn Ala Asn Glu Asp Tyr Arg Glu  
435 440 445

Ala Ser Ser Cys Ala Val Asn Leu Val Leu Arg Leu Arg Asn Ser Arg  
450 455 460

Lys Glu Leu Asn Asp Ile Arg Phe Glu Phe Thr Pro Gly Arg Asp Thr  
465 470 475 480

Ala Asp Gly Val Ser Gln Glu Leu Phe Ser Ala Gly Leu Val Asp Gly  
485 490 495

His Asp Val Val Ile Val Ala Ala Asn Leu Gln Lys Ile Val Asp Asp  
500 505 510

Pro Lys Ala Leu Lys Thr Leu Thr Phe Lys Leu Ala Ser Gly Cys Asp  
515 520 525

Gly Ser Glu Ile Pro Asp Glu Val Lys Leu Ile Gly Phe Ala Gln Leu  
530 535 540

Ser Val Ser  
545

<210> 273  
<211> 547  
<212> PRT  
<213> Homo sapiens

<400> 273

Met Ala Glu Pro Ser Gly Ser Pro Val His Val Gln Leu Pro Gln Gln  
1 5 10 15

Ala Ala Pro Val Thr Ala Ala Ala Ala Ala Pro Ala Ala Ala Thr  
20 25 30

Ala Ala Pro Ala Pro Ala Ala Pro Ala Ala Pro Ala Pro Ala Pro Ala  
35 40 45

Pro Ala Pro Ala Ala Gln Ala Val Gly Trp Pro Ile Cys Arg Asp Ala  
50 55 60

Tyr Glu Leu Gln Glu Val Ile Gly Ser Gly Ala Thr Ala Val Val Gln  
65 70 75 80

Ala Ala Leu Cys Lys Pro Arg Gln Glu Arg Val Ala Ile Lys Arg Ile  
85 90 95

Asn Leu Glu Lys Cys Gln Thr Ser Met Asp Glu Leu Leu Lys Glu Ile  
100 105 110

Gln Ala Met Ser Gln Cys Ser His Pro Asn Val Val Thr Tyr Tyr Thr  
115 120 125

Ser Phe Val Val Lys Asp Glu Leu Trp Leu Val Met Lys Leu Leu Ser  
130 135 140

Gly Gly Ser Met Leu Asp Ile Ile Lys Tyr Ile Val Asn Arg Gly Glu  
145 150 155 160

His Lys Asn Gly Val Leu Glu Glu Ala Ile Ile Ala Thr Ile Leu Lys  
165 170 175

Glu Val Leu Glu Gly Leu Asp Tyr Leu His Arg Asn Gly Gln Ile His

180                    185                    190

Arg Asp Leu Lys Ala Gly Asn Ile Leu Leu Gly Glu Asp Gly Ser Val  
195                    200                    205

Gln Ile Ala Asp Phe Gly Val Ser Ala Phe Leu Ala Thr Gly Gly Asp  
210                    215                    220

Val Thr Arg Asn Lys Val Arg Lys Thr Phe Val Gly Thr Pro Cys Trp  
225                    230                    235                    240

Met Ala Pro Glu Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala  
245                    250                    255

Asp Met Trp Ser Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala  
260                    265                    270

Ala Pro Tyr His Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu  
275                    280                    285

Gln Asn Asp Pro Pro Thr Leu Glu Thr Gly Val Glu Asp Lys Glu Met  
290                    295                    300

Met Lys Lys Tyr Gly Lys Ser Phe Arg Lys Leu Leu Ser Leu Cys Leu  
305                    310                    315                    320

Gln Lys Asp Pro Ser Lys Arg Pro Thr Ala Ala Glu Leu Leu Lys Cys  
325                    330                    335

Lys Phe Phe Gln Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu Lys Leu  
340                    345                    350

Leu Thr Arg Thr Pro Asp Ile Ala Gln Arg Ala Lys Lys Val Arg Arg  
355                    360                    365

Val Pro Gly Ser Ser Gly His Leu His Lys Thr Glu Asp Gly Asp Trp  
370                    375                    380

Glu Trp Ser Asp Asp Glu Met Asp Glu Lys Ser Glu Glu Gly Lys Ala  
385                    390                    395                    400

Ala Phe Ser Gln Glu Lys Ser Arg Arg Val Lys Glu Glu Asn Pro Glu  
405                    410                    415

Ile Ala Val Ser Ala Ser Thr Ile Pro Glu Gln Ile Gln Ser Leu Ser  
420                    425                    430

Val His Asp Ser Gln Gly Pro Pro Asn Ala Asn Glu Asp Tyr Arg Glu  
435                    440                    445

Ala Ser Ser Cys Ala Val Asn Leu Val Leu Arg Leu Arg Asn Ser Arg  
450                    455                    460

Lys Glu Leu Asn Asp Ile Arg Phe Glu Phe Thr Pro Gly Arg Asp Thr  
465                    470                    475                    480

Ala Asp Gly Val Ser Gln Glu Leu Phe Ser Ala Gly Leu Val Asp Gly

485

490

495

His Asp Val Val Ile Val Ala Ala Asn Leu Gln Lys Ile Val Asp Asp  
500 505 510

Pro Lys Ala Leu Lys Thr Leu Thr Phe Lys Leu Ala Ser Gly Cys Asp  
515 520 525

Gly Ser Glu Ile Pro Asp Glu Val Lys Leu Ile Gly Phe Ala Gln Leu  
530 535 540

Ser Val Ser  
545